# WM-D6C/TC-D6C

# SERVICE MANUAL

- **Refer to MDR-40L Service Manual issued previously for information of headphones supplied with WM-D6C.**
- **Refer to ECM-939LT Service Manual issued previously for information of headphones supplied with TC-D6C.**

*WM-D6C:*

*US Model*
*Canadian Model*
*AEP Model*
*UK Model*
*E Model*

*TC-D6C:*

*US Model*

**'Dolby'** and the double-D symbol are the trade marks of Dolby Laboratories Licensing Corporation. Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

## SPECIFICATIONS

**Recording System:** 4-track, 2-channel stereo

**Wow and Flutter:** ±0.14% (DIN)
0.04% WRMS (NAB)

**Tape Speed Deviation:** ±0.3% (speed tuning OFF)

**Speed Tuner Variations:** Approx. ±4%

**Frequency Response:** DOLBY NR OFF
- With TYPE IV cassette (Sony METALLIC)
40 – 15,000 Hz ±3 dB
- With TYPE II cassette (Sony UCX)
40 – 15,000 Hz ±3 dB
- With TYPE I cassette (Sony BHF or HFX)
40 – 15,000 Hz ±3 dB

**S/N (NAB, at peak level):**
DOLBY NR C
TYPE IV cassette (Sony METALLIC) 71 dB
TYPE II cassette (Sony UCX) 71 dB
TYPE I cassette (Sony BHF or HFX) 67 dB
DOLBY NR B
TYPE IV cassette (Sony METALLIC) 65 dB
TYPE II cassette (Sony UCX) 65 dB
TYPE I cassette (Sony BHF or HFX) 61 dB
DOLBY NR OFF
TYPE IV cassette (Sony METALLIC) 58 dB
TYPE II cassette (Sony UCX) 58 dB
TYPE I cassette (Sony BHF or HFX) 54 dB

**Total Harmonic Distorsion:** 0.9% with Sony METALLIC

**Inputs:** MIC (PLUG IN POWER)
(stereo minijack) x 1
0.25 mV (-70 dB) with low impedance microphone
LINE IN (stereo minijack) x 1
77.5 mV (-20 dB) (47 kilohms)

| Tape Transport Mechanism Type | MT-D6C-20 |
|---|---|

**Outputs:** LINE OUT (stereo minijack) x 1
output level 0.25 V (-10 dB) (less than 4.7 kilohms)
Headphones (stereo minijack) x 1
load impedance 8 – 300 ohms

**Power Output:** Headphones
30 mW + 30 mW (at 10% harmonic distortion)
load impedance 32 ohms

**Battery Life:** See page 2.

**Power Requirements:** 6 V dc, four batteries, IEC designation R6 (size AA)
BP-23 battery pack (optional)
External power input jack
(required power 6 V dc) accepts Sony ac power adaptor (optional) listed on page 2 for use on appropriate ac power, or Sony DCC-127A car battery cord (optional) for use on 12 V car battery

**Dimensions:** 181 x 40 x 95 mm (w/h/d)
($7\frac{1}{4}$ x $1\frac{5}{8}$ x $3\frac{3}{4}$ inches)
including projecting parts

**Weight:** Approx. 640 g (1 lb 7 oz) including batteries

**0 dB = 0.775 V**

MICROFILM

STEREO CASSETTE-CORDER

SONY®

**Battery life**

| type of cassette / batteries | continuous recording | | continuous playback |
|---|---|---|---|
| | TYPE IV (Sony METALLIC) | TYPE I (Sony BHF, HFX) | TYPE I, IV (Sony BHF, HFX, METALLIC) |
| Sony Eveready AM3 alkaline batteries | 4 | 5 | 6 |
| Sony SUM-3(NS) New Super batteries | 2 | 2.5 | 3 |

(hours)

## OTHER POWER SOURCES

### HOUSE CURRENT

Use the appropriate ac power adaptor listed below, available in the countries where the set is used.

First connect the adaptor to DC IN 6 V jack, and then to a wall outlet.

Before connecting, be sure to read the instruction manual for the adaptor.

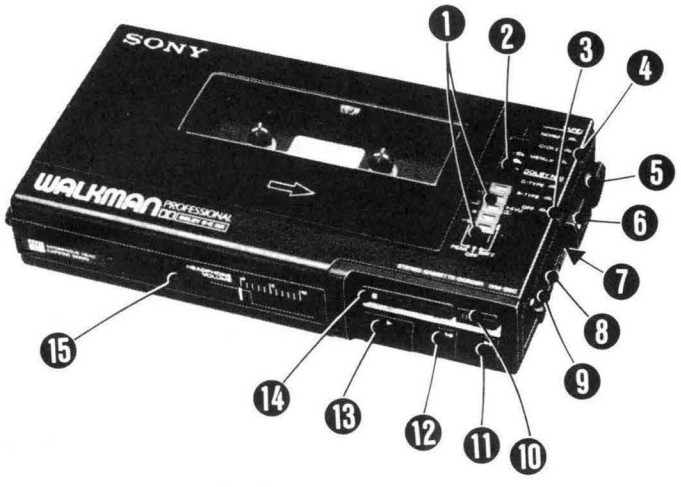
| location | ac power adaptor | input voltage of adaptor |
|---|---|---|
| AEP | AC-66 | 220 V ac, 50 Hz |
| | AC-456C | 110 or 220 V ac adjustable, 50 Hz |
| UK | AC-15A | 240 V ac, 50 Hz |
| Canadian | AC-9 | 120 V ac, 60 Hz |
| E | AC-4A | 110, 120, 220 or 240 V ac adjustable, 50/60 Hz |
| US | AC-9W | 120 V ac, 60 Hz |

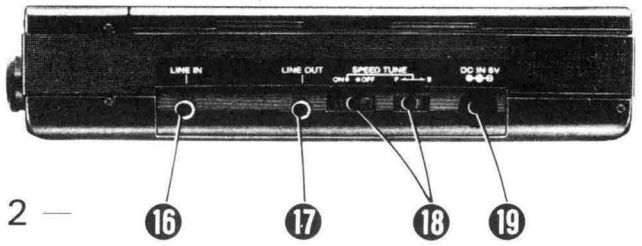
## FEATURES

- **Quartz lock capstan servo system** assures accurate and stable tape speed.
- In addition to the conventional B-type Dolby* NR system, the WM-D6C or TC-D6C employs the **C-type Dolby NR system** which reduces tape noise twice as effectively as the B-type system.
- **Speed control** adjusts the tape speed accurately (approx. ±4%) in the playback mode.
- **DC-DC converter** boosts the low voltage of DC 6V and maintains sufficient power.
- **Amorphous head** for recording/playback provides a wider dynamic range and a more extended frequency response.
- **Tape selector** for optimum recording with standard tapes as well as high-performance tapes.
- **Microphone attenuator** eliminates the distortion which may be caused by high-level input signal.
- **MIC (PLUG IN POWER) jack** can supply power to an ECM-102 electret condenser stereo microphone (optional).
- **Four different power sources:** batteries, house current, rechargeable battery pack, and 12 V car battery.
- **5-LED peak/battery indicator** shows both the peak level and the battery strength.
- **Stereo minijacks** can be used for connecting to audio components.

## PARTS IDENTIFICATION

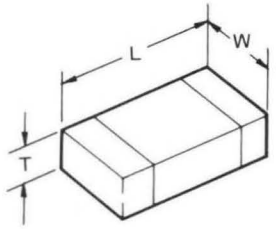
❶ Peak/battery indicator and indication selector
❷ Tape counter and reset button
❸ DOLBY NR selector
❹ TAPE selector
❺ REC LEVEL (recording level) control
❻ ● RECORD button
❼ MIC ATT (microphone attenuator) switch
❽ MIC (PLUG IN POWER) jack (stereo minijack)
❾ HEADPHONES jack
❿ ▮▮ (pause) button
⓫ ▶▶ (fast forward) CUE button
⓬ ◀◀ (rewind) REVIEW button
⓭ ▶ PLAY (playback) button
⓮ ▲■(eject/stop) button
⓯ HEADPHONE VOLUME control
⓰ LINE IN jack
⓱ LINE OUT jack
⓲ SPEED TUNE selector and control
⓳ DC IN 6 V jack



**Chip components**

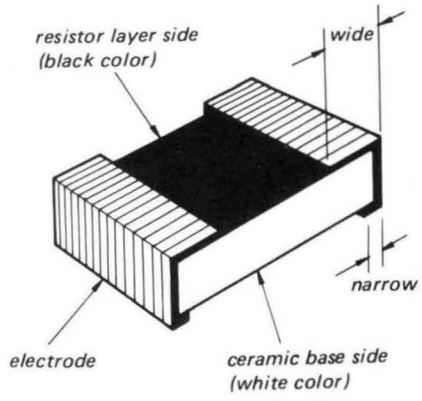
Chip components include resistors, capacitors, transistors, diodes, coil and adjustable resistors.
In this section, the types of resistors, ceramic capacitors, transistors and diodes which are used most frequently will be described.
Dimension of transistors and capacitors



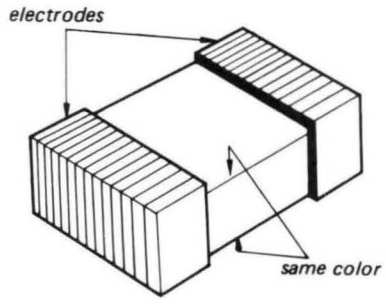

(Unit: mm)

| Type | L | W | T |
|---|---|---|---|
| 3216 | 3.2 | 1.6 | 0.45 ~ 0.6 |
| 2125 | 2.0 | 1.25 | 0.35 ~ 0.5 |

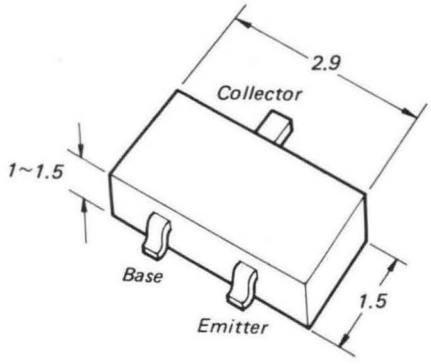
**Identification**



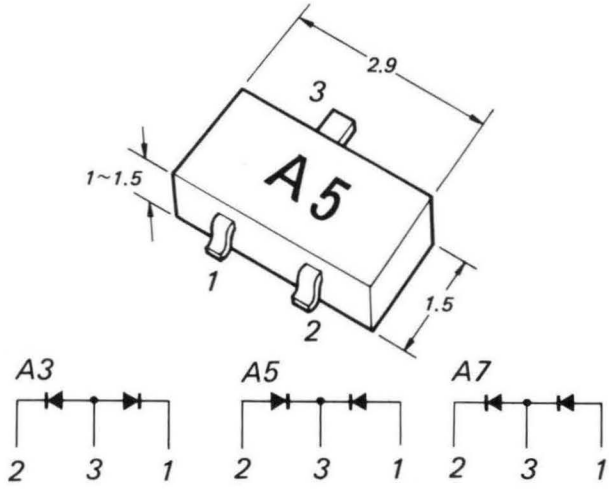

**Resistor**




**Laminated Ceramic Capacitor**




**Transistor**




**Diode**

**Replacing chip components**

All chip components should be connected and disconnected, using a tapered soldering iron [temperature of the iron tip: less than 280°C (536°F)], a pair of tweezers and braided wire.

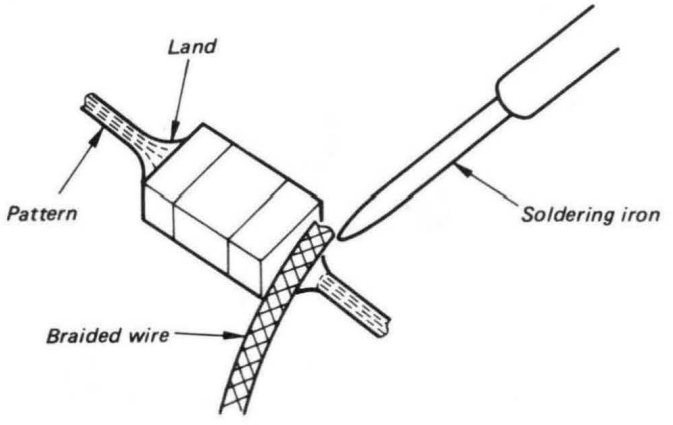
**Precautions for replacement**

1. **Do not disconnect the chip component forcefully. Otherwise, the pattern may peel off.**
2. **Never re-use a disconnected chip component. Dispose of all old chip components.**
3. **To protect the chip component, heating time for attaching the component should be within 3 seconds.**

○ **Removing chip components**

**(1) Removing solder at electrode**

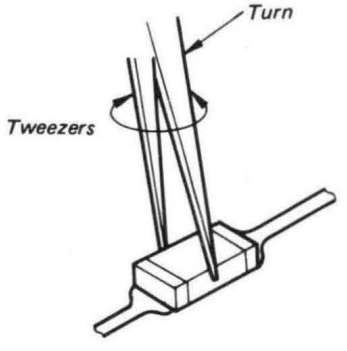
Remove the solder at the electrode, using a thin braided wire. Do not remove the solder of the part (chip component) attached adjacent to the electrode.




**(2) Disconnecting chip components**

Turn the tweezers with the soldering iron alternately applied to both electrodes, and the chip component will be disconnected. Take careful precautions while disconnecting, because if the chip component is forcefully removed the land may peel off.

Never re-use a disconnected chip component.




**(3) Smoothing the soldered surface**

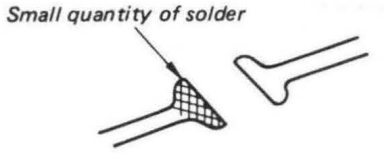
After disconnecting the chip component, remove the solder by using a braided wire to smooth the land surface.

○ **Connecting chip components**

The value of chip components is not displayed on the main body. Take due precautions to avoid mixing new chip components with other ones.

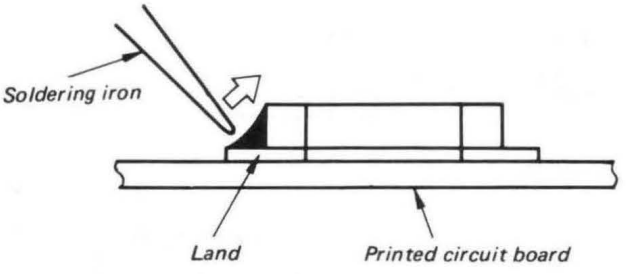
**(1) Applying solder to land on one side**

Apply a thin layer of solder to the land on one side where the chip component is to be connected. Too much solder may cause bridging.




**(2) Speedy soldering**

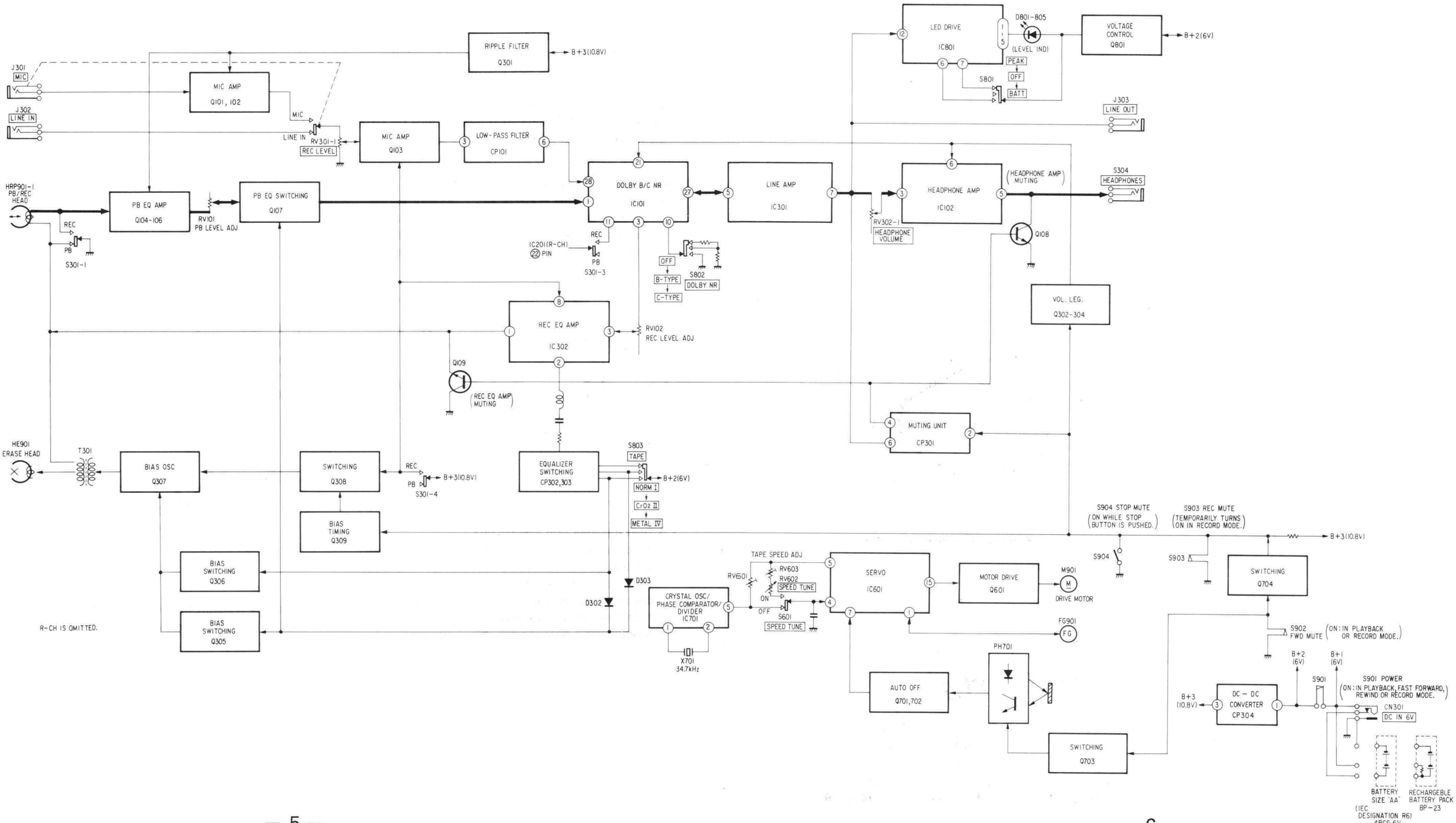
Hold the chip component at the desired position, using tweezers, and apply the soldering iron in the arrow-marked direction. To protect the chip component, heating time should be within 3 seconds.




**(3) Speedy soldering of electrode on the other side**

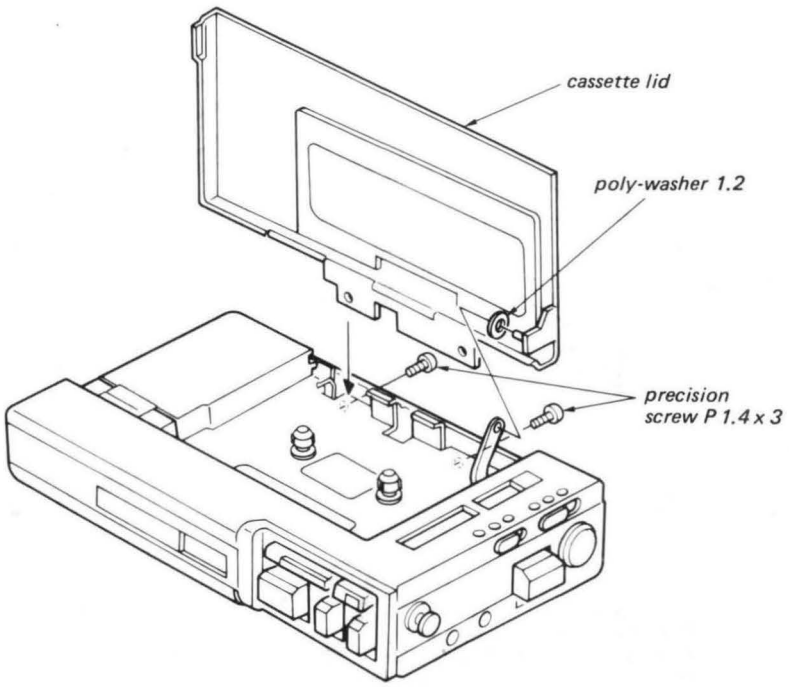
Solder the electrode on the other side in the same way as in (2) above.

# SECTION 1
# BLOCK DIAGRAM

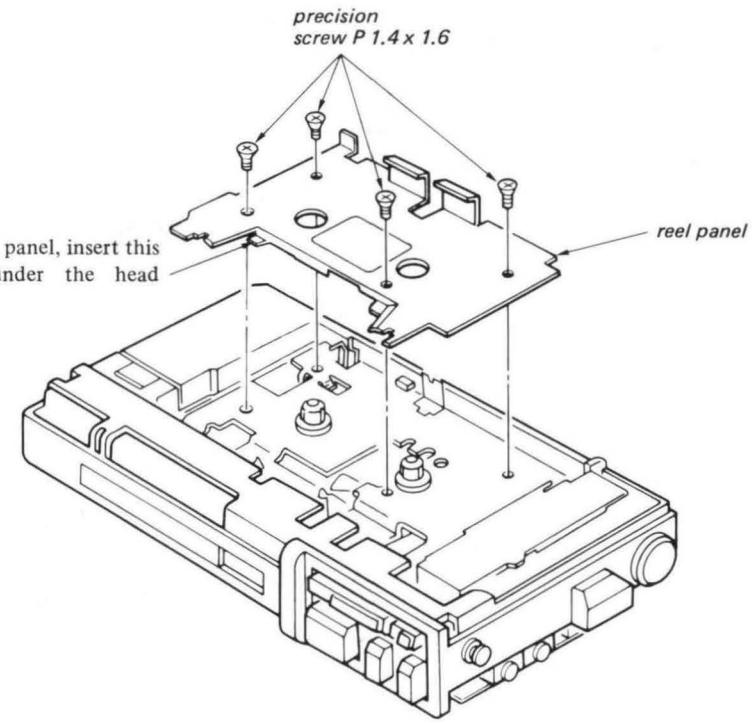


# SECTION 2
# DISASSEMBLY

## CASSETTE LID

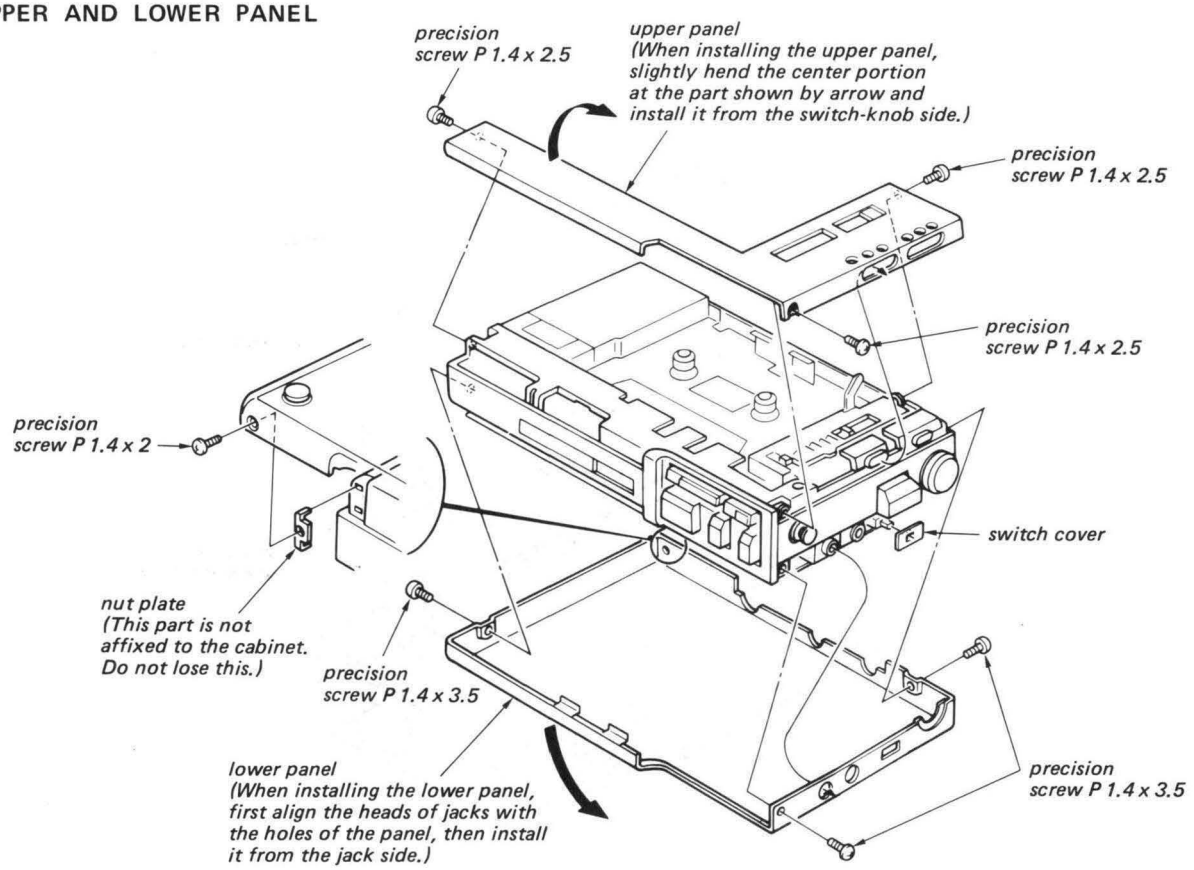



## REEL PANEL

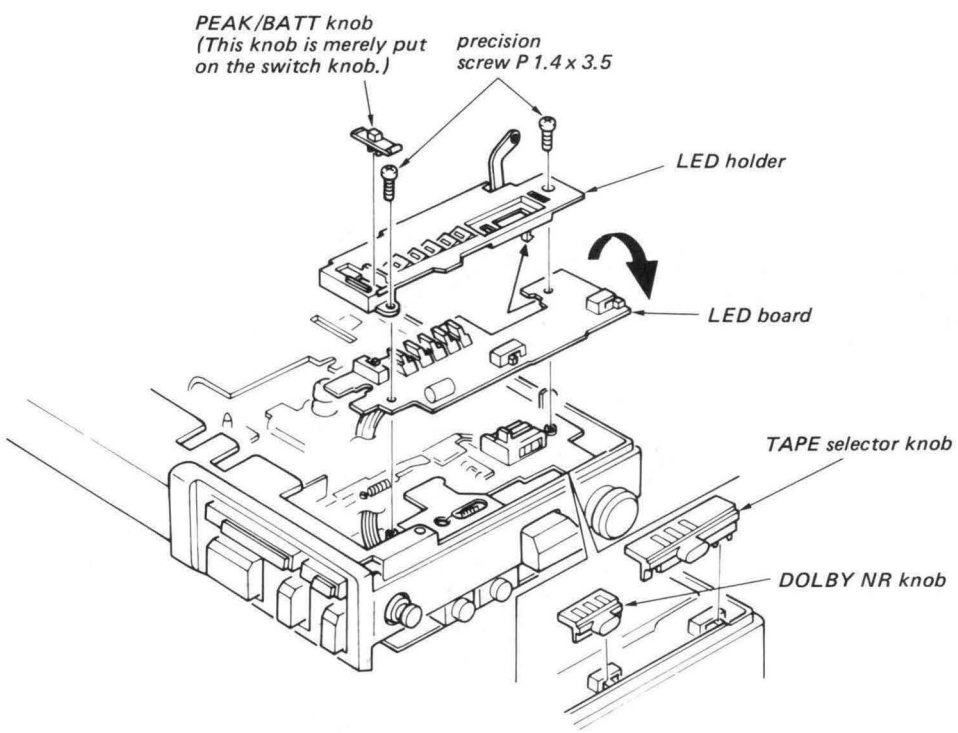



**Note:** When installing the reel panel, insert this protrusion first to under the head chassis.

## UPPER AND LOWER PANEL

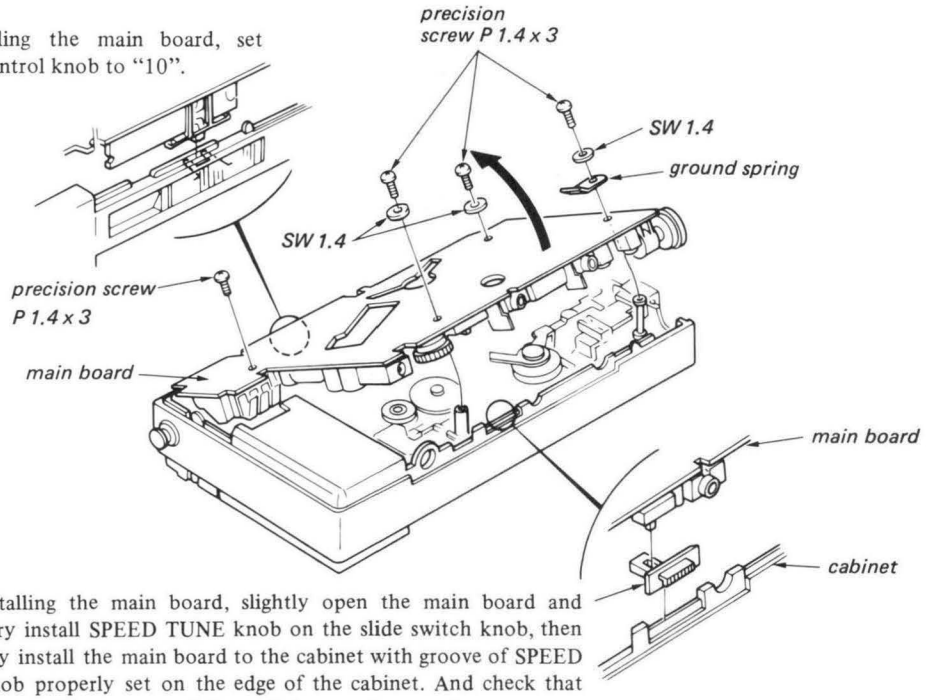

precision screw P 1.4 x 2.5
upper panel (When installing the upper panel, slightly hend the center portion at the part shown by arrow and install it from the switch-knob side.)
precision screw P 1.4 x 2.5
precision screw P 1.4 x 2.5
precision screw P 1.4 x 2
switch cover
nut plate (This part is not affixed to the cabinet. Do not lose this.)
precision screw P 1.4 x 3.5
lower panel (When installing the lower panel, first align the heads of jacks with the holes of the panel, then install it from the jack side.)
precision screw P 1.4 x 3.5

## LED HOLDER AND LED BOARD


PEAK/BATT knob (This knob is merely put on the switch knob.)
precision screw P 1.4 x 3.5
LED holder
LED board
TAPE selector knob
DOLBY NR knob

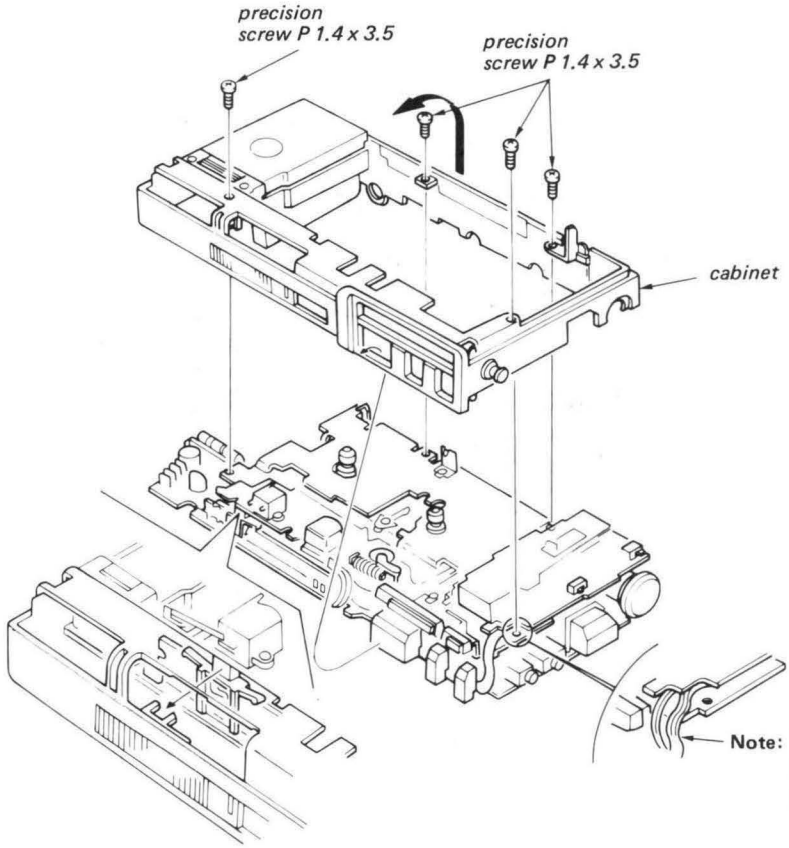
## MAIN BOARD

**Note:** When installing the main board, set VOLUME control knob to "10".




**Note:** When installing the main board, slightly open the main board and preparatory install SPEED TUNE knob on the slide switch knob, then completely install the main board to the cabinet with groove of SPEED TUNE knob properly set on the edge of the cabinet. And check that the knob smoothly moves and the switch securely operates.

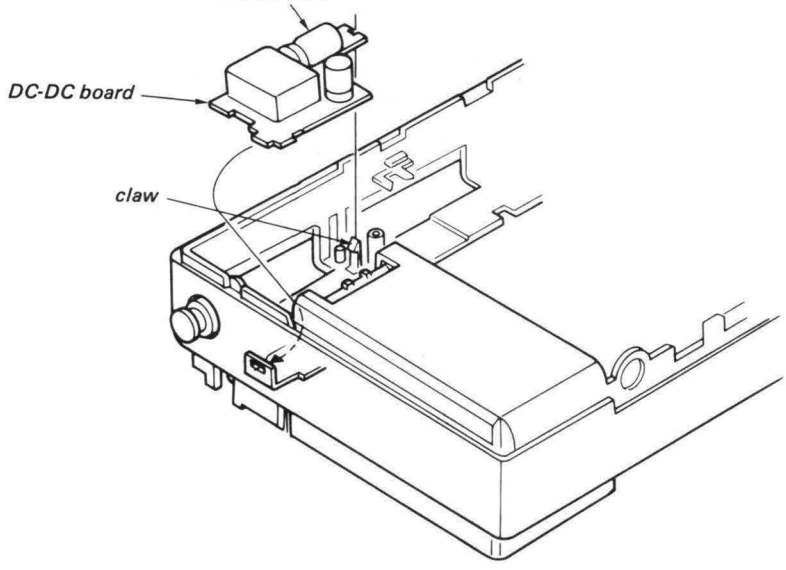
## CABINET



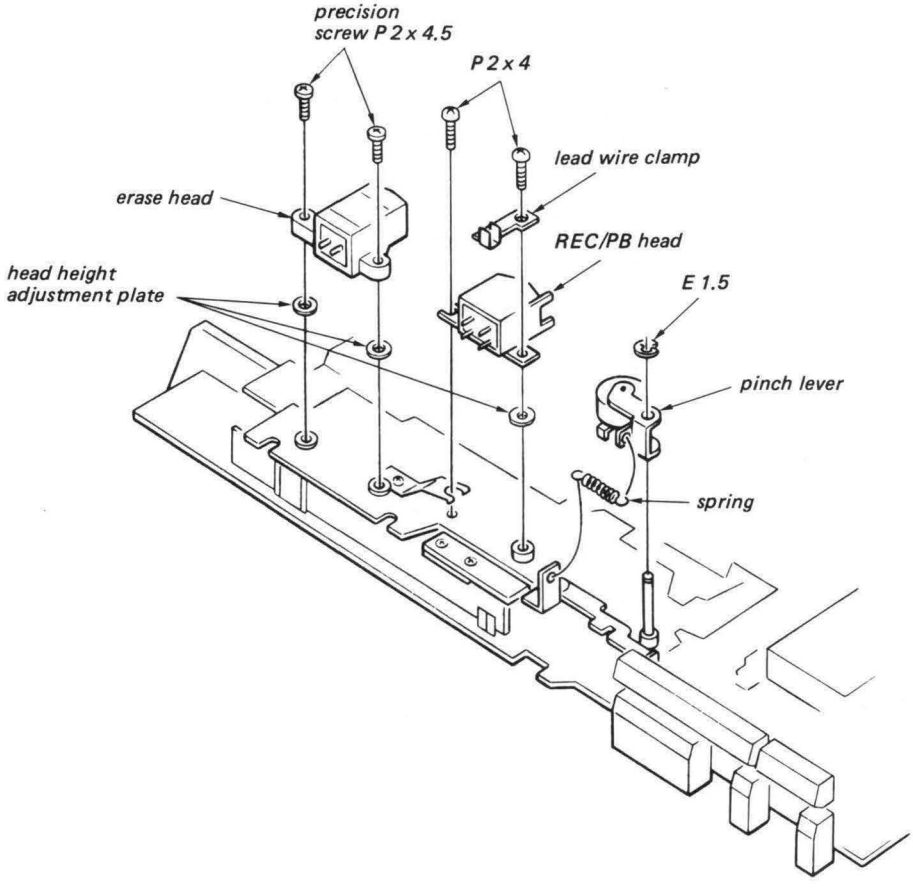

**Note:** When installing the cabinet, dress lead wires from the LED board to inside so they are not damaged by the boss of the cabinet.

## DC-DC BOARD

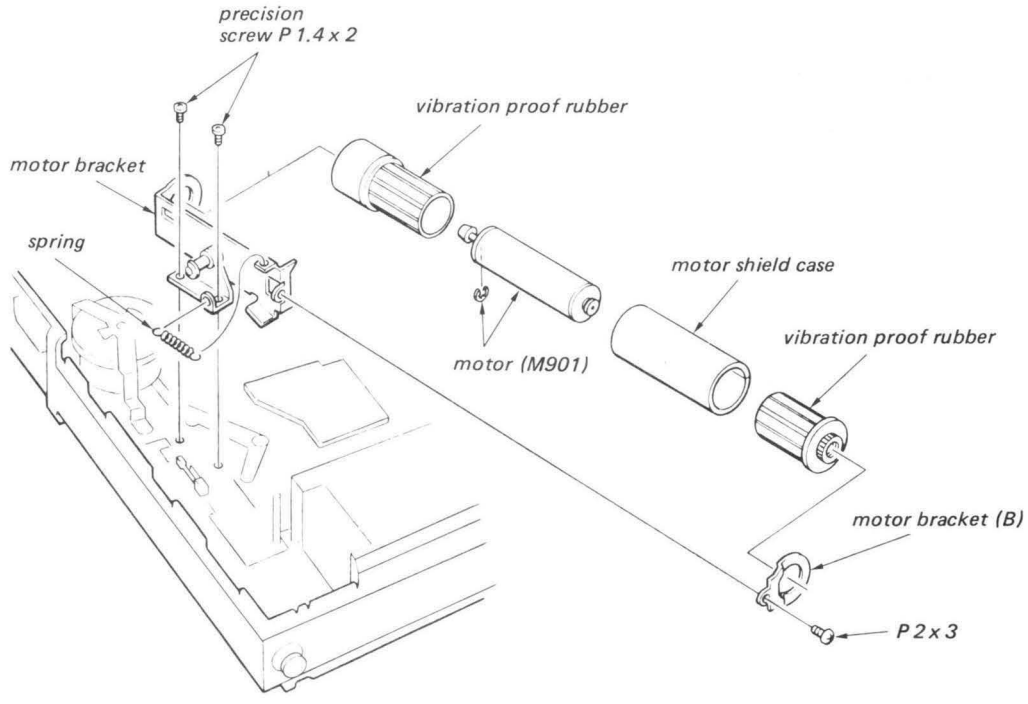
**Note:** When C316 is replaced, bend its lead diagonally and lay it on the DC-DC board not to touch components on the main board.




## REC/PB, ERASE HEAD AND PINCH LEVER

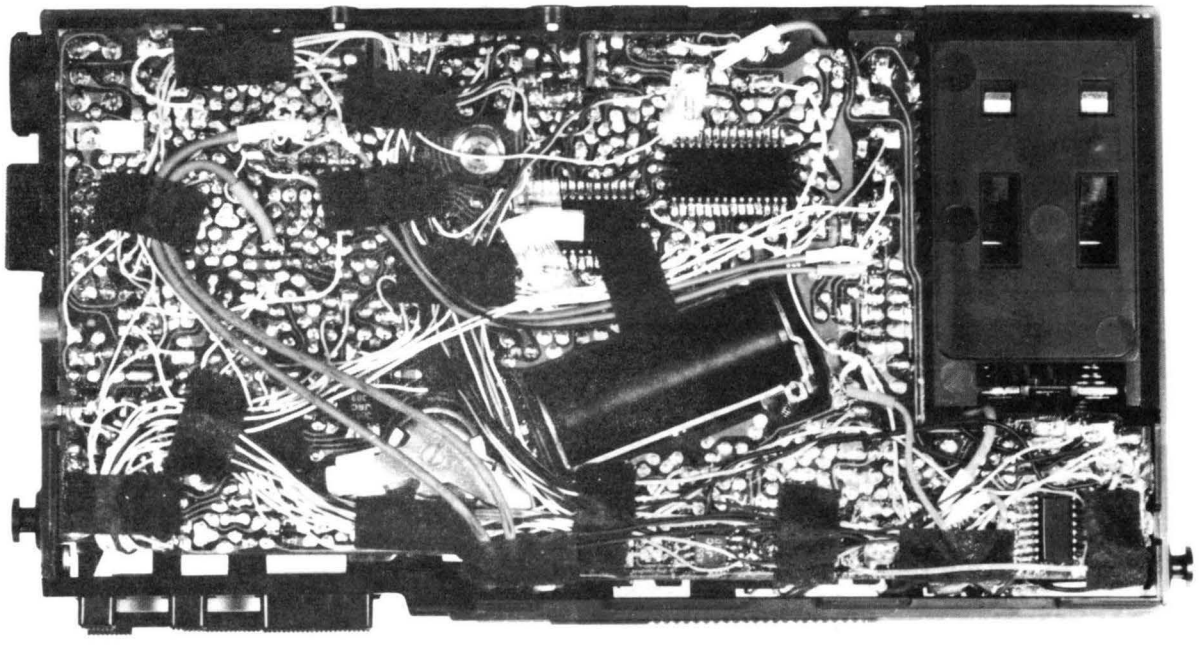


MOTOR




## GENERAL NOTES ON SERVICING

Secure the lead wires and shielded wires to the main board with sections of adhesive tapes as shown below, otherwise proper operation of the unit may be degraded.



# SECTION 3
# ADJUSTMENTS

## 3-1. MECHANICAL ADJUSTMENTS AND MEASUREMENTS

### PRECAUTION

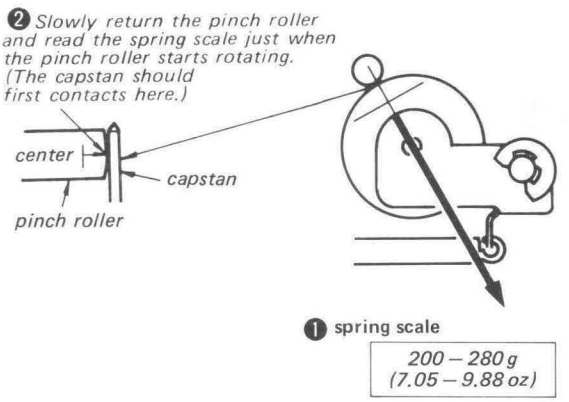
1. Clean the following parts with a denatured-alcohol-moistened swab:

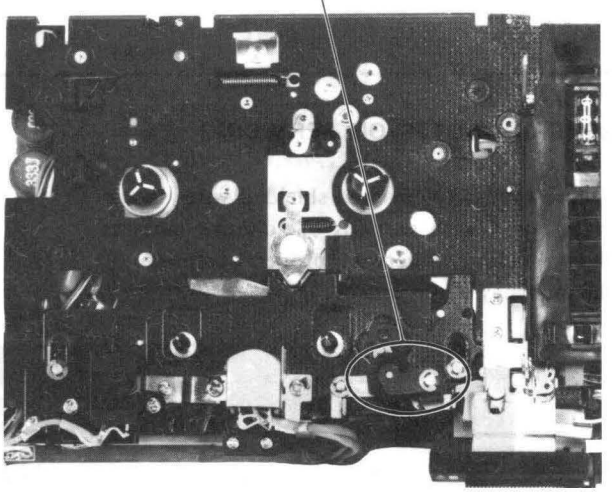
| | |
|---|---|
| record/playback head | pinch roller |
| erase head | rubber belts |
| capstan | idlers |

2. Demagnetize the record/playback and erase head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

**Pinch Roller Pressure Measurement**

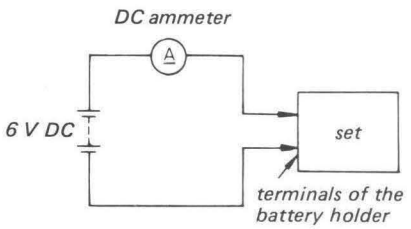
*– Playback Mode –*


❷ Slowly return the pinch roller and read the spring scale just when the pinch roller starts rotating. (The capstan should first contacts here.)
center
capstan
pinch roller
❶ spring scale
200 – 280 g (7.05 – 9.88 oz)

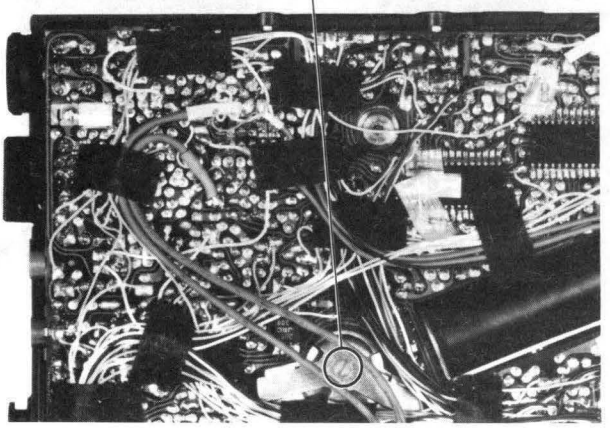


**Flywheel Thrust Play Adjustment**

*– Playback Mode –*

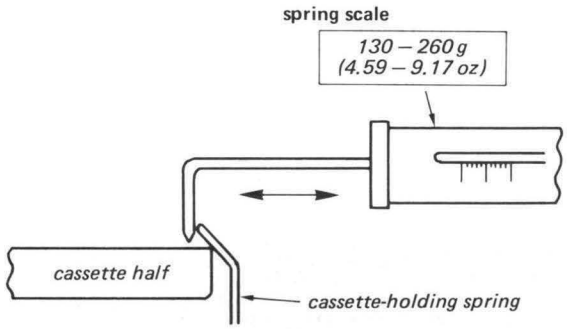


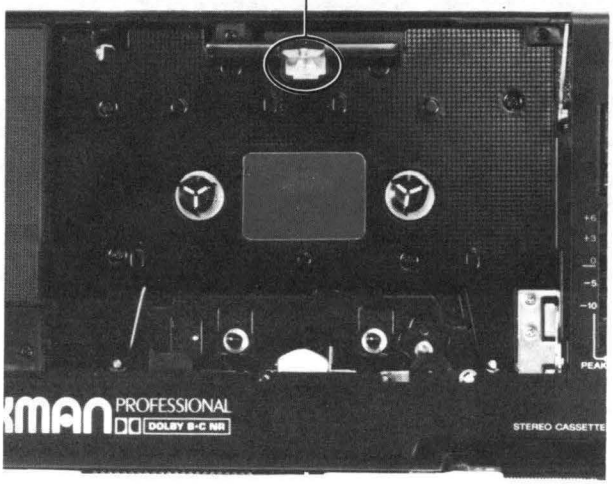

1. Turn the thrust screw counterclockwise until the screw tip leaves from the flywheel shaft.
2. Gradually turn the thrust screw clockwise to the position where the motor current suddenly increases.
3. Then, turn the thrust screw counterclockwise about ¼ turn from the position obtained in step 2.



### Cassette-holding Spring Adjustment

1. Pull the spring scale outward until the cassette-holding spring releases from the cassette half.
2. Slowly return the spring scale back to the cassette half until the spring just touches the edge of the cassette half. Read the spring scale at this instant.
3. Adjust the spring by bending back and forth to satisfy the spring scale value.



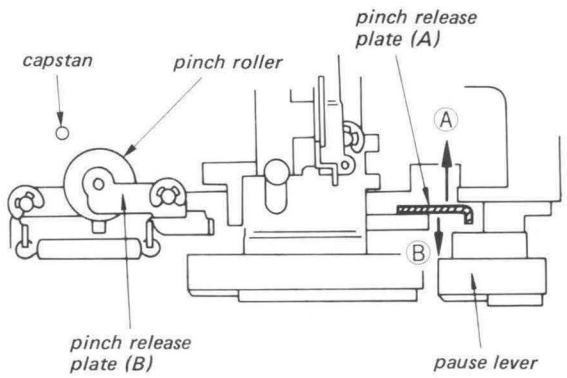

### Pause Action Adjustment

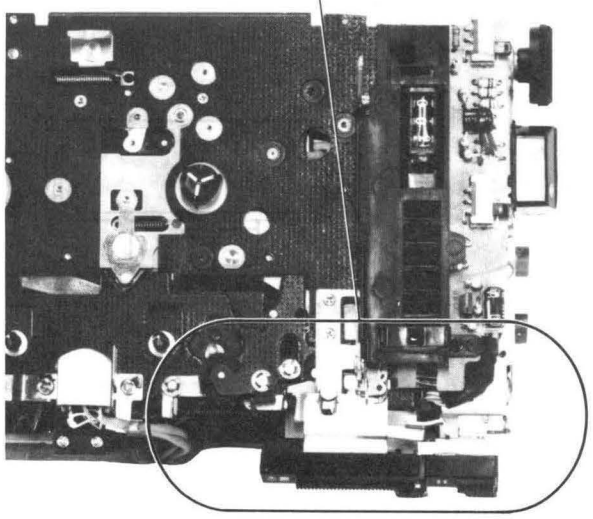
1. Insert a cassette tape and put into playback mode.
2. At this time, confirm that the pinch release plate (A) does not touch on the pinch release plate (B) and the pause lever.
3. Check for the lock timing when the pause button is pushed in playback mode.

   **Lock timing:** The tape is stopped without placing in cue mode and is not reversed after the pinch roller is detached from the capstan.

4. When pushing the pause button again to restart the set, make sure that the pinch roller is contact with the capstan after the unit begins to take the tape up without placing in cue mode. Make sure that the take-up reel table does not rotate after the pinch roller is contact with the capstan.

| When putting the pause button ON or OFF. | Adjustment of the pinch release plate (A) |
|---|---|
| In case of CUE mode. | Bend to Ⓐ side. |
| In case of reversing. | Bend to Ⓑ side. |

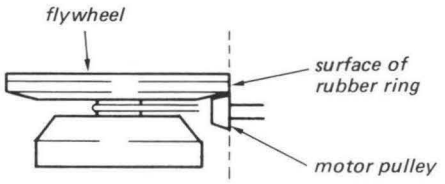


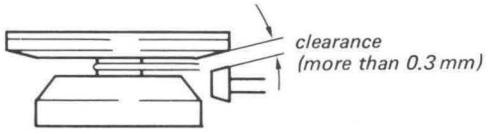
### Motor Pressure Measurement

*– Playback Mode –*

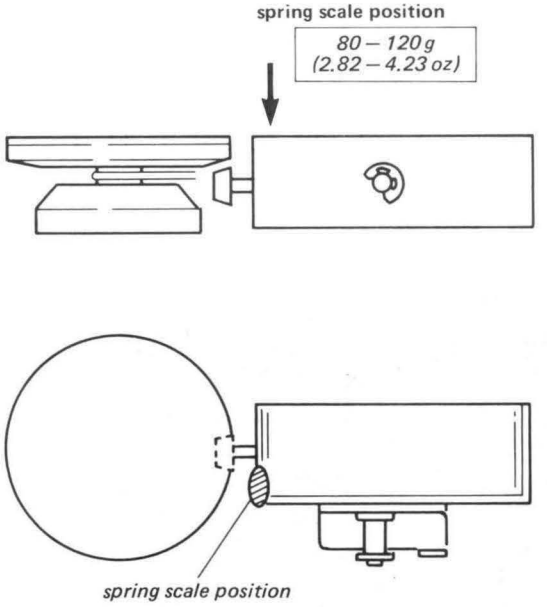
1. The motor pulley's inner edge (large side) should not extend from the edge of the flywheel's rubber ring.




2. When the mode is changed from playback by slowly pressing the stop button, the motor pulley and rubber surface of the flywheel should have clearance.




3. In playback mode, put a spring scale vertically on the edge of the motor bracket as shown below, push the spring scale down vertically until the motor pulley just detaches from the flywheel's rubber ring and read the spring scale at this instance.

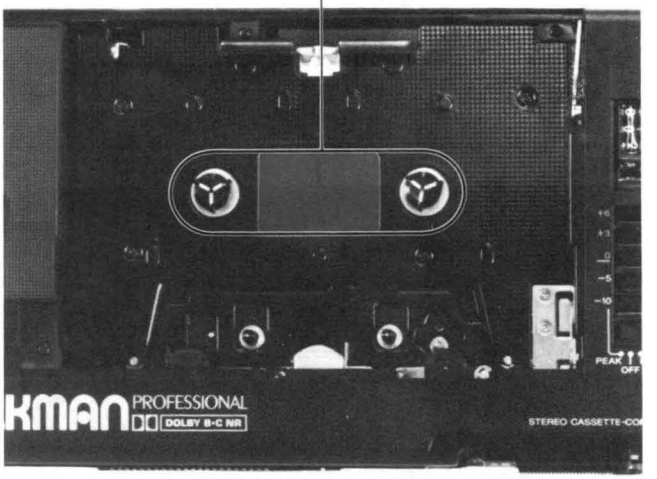



### Torque Measurement

| Torque | Torque Meter | Meter Reading |
|---|---|---|
| FWD | CQ-102C | 25 – 43 g•cm (0.35 – 0.6 oz•inch) |
| Back Tension | | 1.5 – 3.5 g•cm (0.02 – 0.05 oz•inch) |
| FF•REW | CQ-201B | more than 75 g•cm (more than 1.04 oz•inch) |

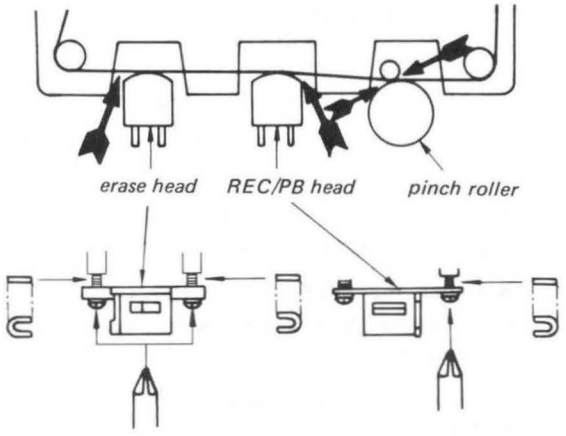
### Tape Tension Measurement

| Tension Meter | Meter Reading |
|---|---|
| CQ-403A | more than 65 g (more than 2.29 oz) |

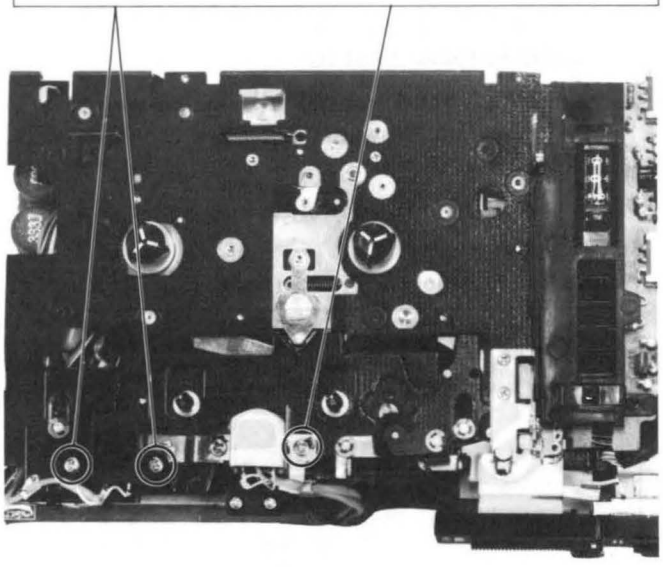


**Tape Path Adjustment**

1. Insert a mirror cassette (CQ-009C).
2. In playback mode and viewing from the front, confirm that there is no tape curl and tape twist at portions shown by arrow.
3. If there is tape curl and tape twist, adjust the head heights by using the adjustment plate. (Specifically no tape curls should exist at the lower sides of the tape guides.)




*3-513-237-01 (t = 0.1)*
*head height adjustment plate*



## 3-2. ELECTRICAL ADJUSTMENTS

**Note:** The adjustment should be performed in the order given in this service manual. The adjustments should be performed for both L-CH and R-CH.

- Set the TAPE switches according to the tape as follows.

| Tape | TAPE switch |
|---|---|
| CS-15 | NORM |
| CS-26 | $CrO_2$ |
| CS-40 | METAL |

- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch . . . . . OFF
TAPE switch . . . . . NORM
MIC ATT switch . . . . . 0 dB
PEAK/BATT switch . . . . . PEAK
SPEED TUNE switch . . . . . OFF
SPEED TUNE control . . . . . center

- Standard Record:

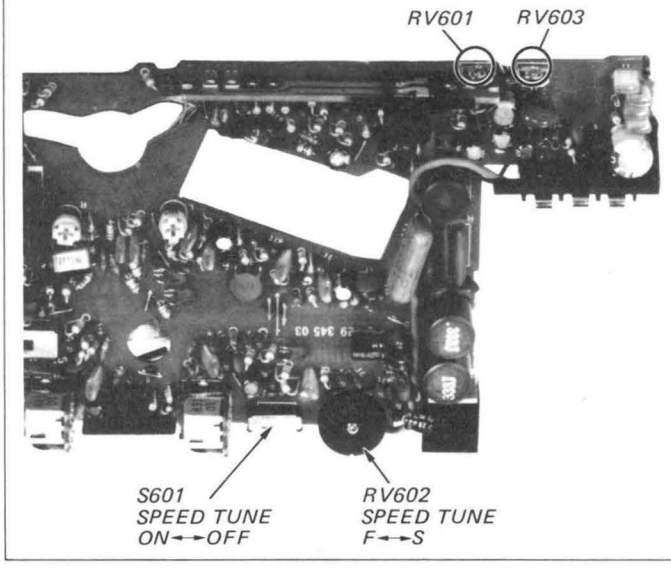
Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

Standard Input Level

| | MIC | LINE IN |
|---|---|---|
| source impedance | 300Ω | 10kΩ |
| input level | 0.77mV (−60dB) | 0.25V (−10dB) |

Standard Output Level

| | LINE OUT | HEAD-PHONES |
|---|---|---|
| load impedance | 47kΩ | 32Ω |
| output level | 0.254V (−9.8dB) | 0.25V (−10dB) |

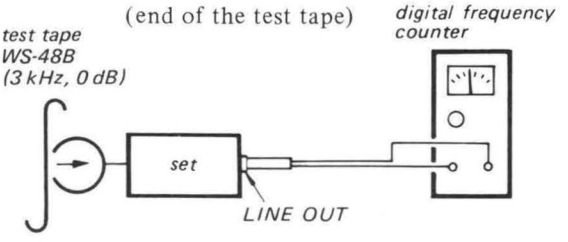



### Tape Speed Adjustment

**Note:** Perform this adjustment after the Record/playback Head Azimuth Adjustment.

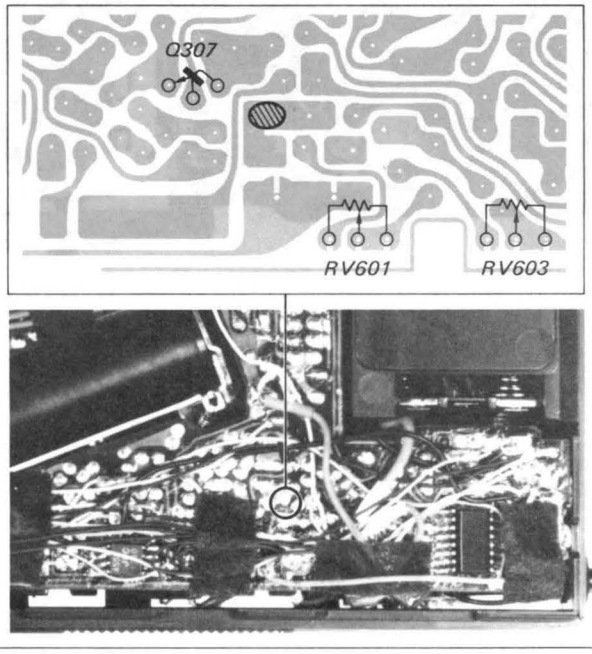
**Procedure:**

Mode: playback
(end of the test tape)




1. Set SPEED TUNE switch to OFF.
2. Unsolder the solder bridge and open the bridged patterns shown below.
3. Turn RV601 so that frequency reading becomes in 3,090 Hz ± 10 Hz.
4. Resolder the adjustment patterns opened in step 2 above. Now frequency reading should be 3,000 Hz ± 9 Hz.
5. Set SPEED TUNE switch to ON, and SPEED TUNE control to its center position.
6. Turn RV603 so that frequency reading becomes in 3,000 Hz ± 10 Hz.
7. Set SPEED TUNE control to maximum position in "S" direction. Now frequency reading should be below 2,884 Hz.
8. Set SPEED TUNE control to maximum stop in "F" direction. Now the frequency should be above 3,120 Hz.
9. Set SPEED TUNE control back to center position.

**Adjustment Location:** *– main board –*



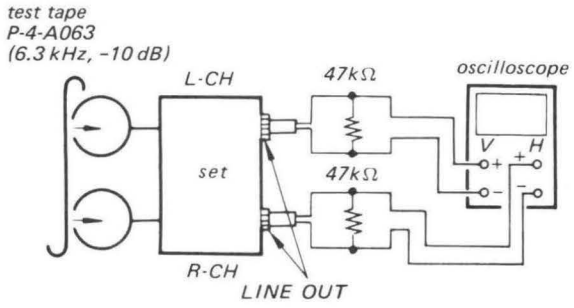
## Record/playback Head Azimuth Adjustment

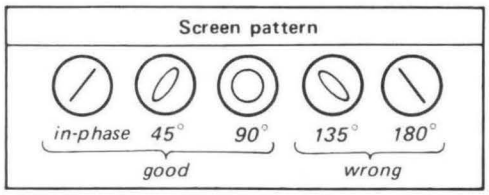
**Setting:**

RV101, 201 (playback level): mechanical mid

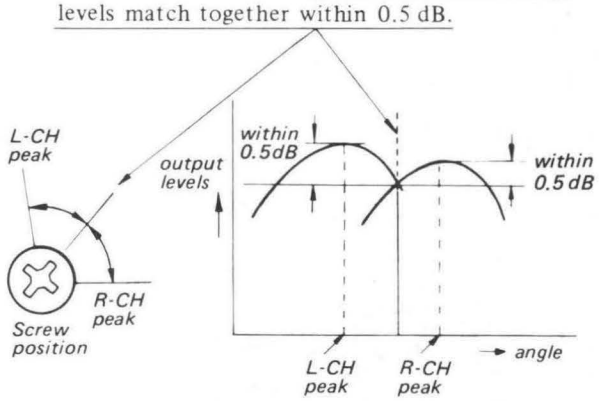
**Procedure:**

1. Mode: playback



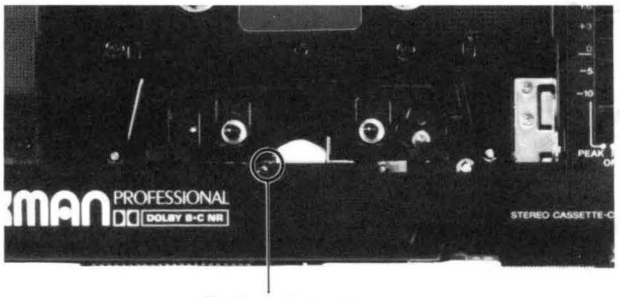




2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 0.5 dB.




3. After adjustment, apply locking compound to the adjusted screw.

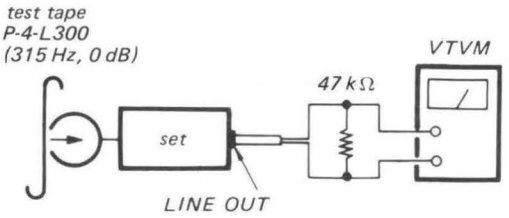
**Adjustment Location:**




## Playback Level Adjustment

**Procedure:**

Mode: playback



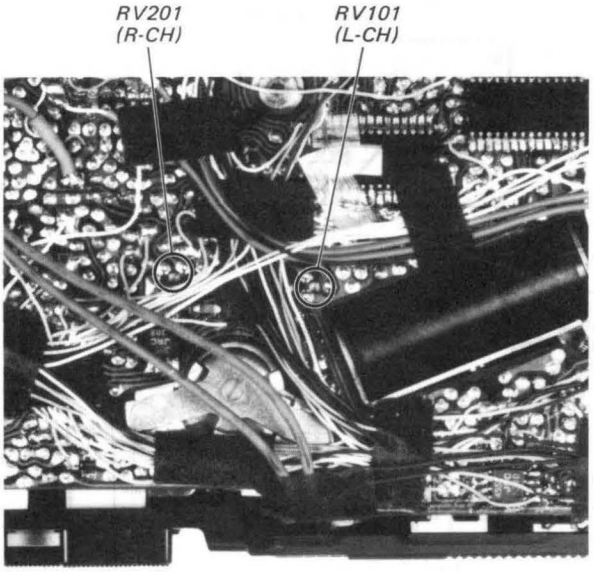

**Specification:**

LINE OUT level: 0.25 – 0.26 V
(-10 to -9.6 dB)

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

**Adjustment Location:**

*– main board –*



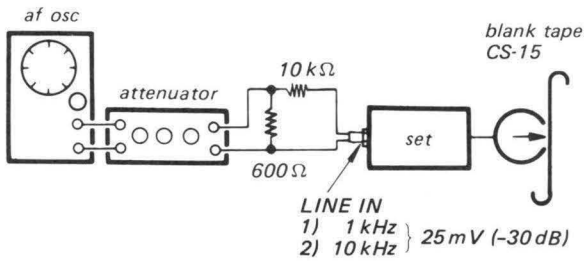
## Record Bias Adjustment

Setting:

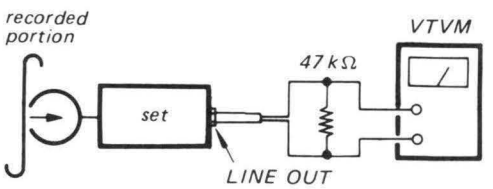
REC LEVEL control: standard record
LINE IN : -10 dB
LINE OUT : -9.8 dB

Procedure:

1. Mode: record




2. Mode: playback



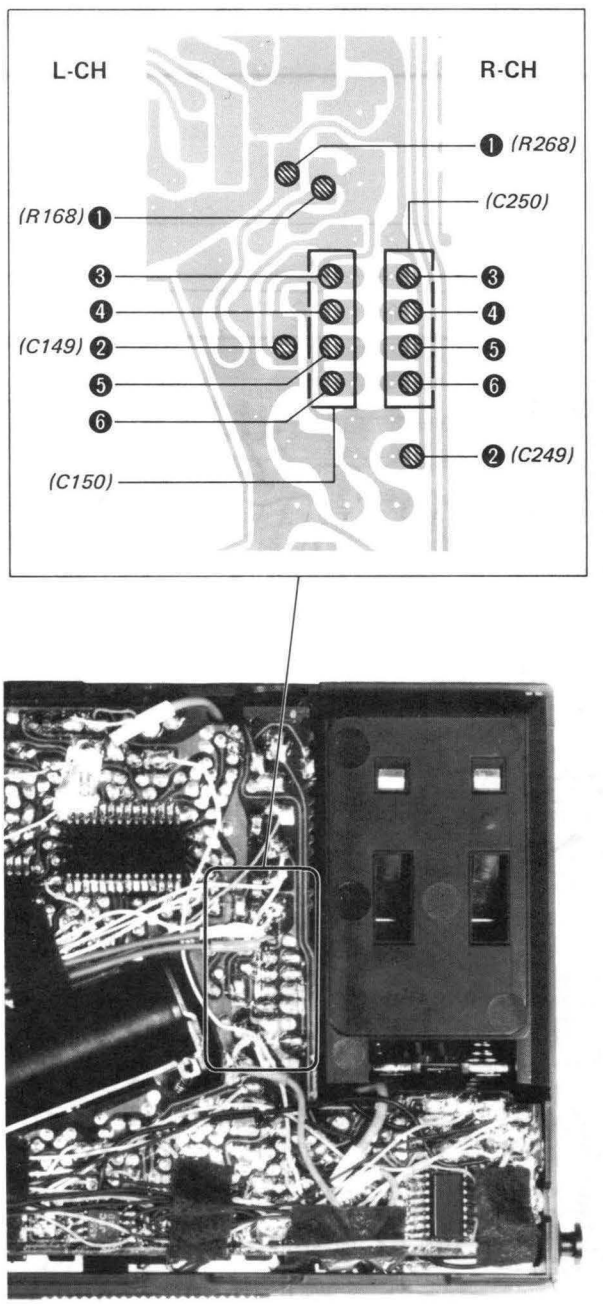

Confirm that the LINE OUT level of 10 kHz signal is 0 ± 0.5 dB relative to that of 1 kHz.

3. If it is not within 0 ± 0.5 dB, change the pattern connection and repeat the steps 1 and 2.

**Note:** When the conductive patterns ❷ – ❻ are connected, and VTVM does not read 0 ± 0.5 dB, disconnect the pattern ❶. Repeat the steps 1 – 3.

Adjustment Location:

*– main board –*



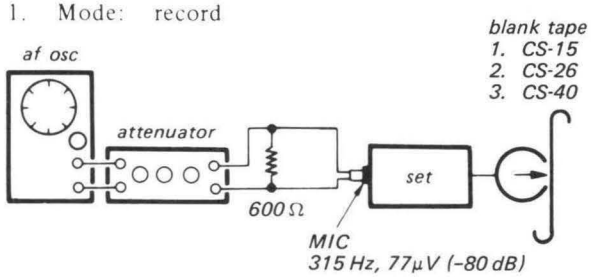
## Record Level Adjustment

**Setting:**

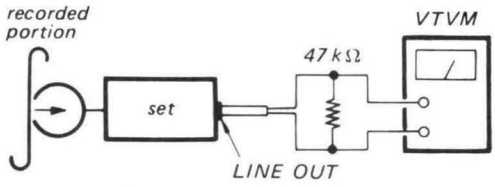
TAPE switch: changes over according as tape type

**Procedure:**

1. Mode: record




2. Mode: playback



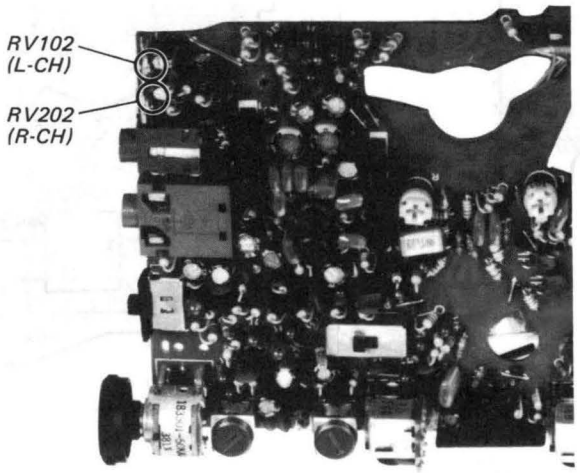

Insert a NORM tape (CS-15) and put into playback mode, adjust RV102 (L-CH) and RV202 (R-CH) to obtain the specified output level. Next, insart a $CrO_2$ tape (CS-26), METAL tape (CS-40) and put into playback mode, confirm that the output level is specified value.

**Specification:**

| Tape | TAPE switch | Standard Output Level |
|---|---|---|
| CS-15 | NORM | 24 – 26.5 mV (-30.3 to -29.3 dB) |
| CS-26 | $CrO_2$ | 21 – 30 mV (-31.3 to -28.3 dB) |
| CS-40 | METAL | |

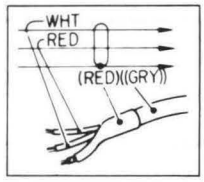
**Adjustment Location:**

*– main board –*




**Note: FOR MOUNTING DIAGRAM**

- Color code of sleeving over the end of the jacket.




- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- : B + pattern
- : signal path
- : L-CH signal path
- : R-CH signal path

**Note: FOR SCHEMATIC DIAGRAM**

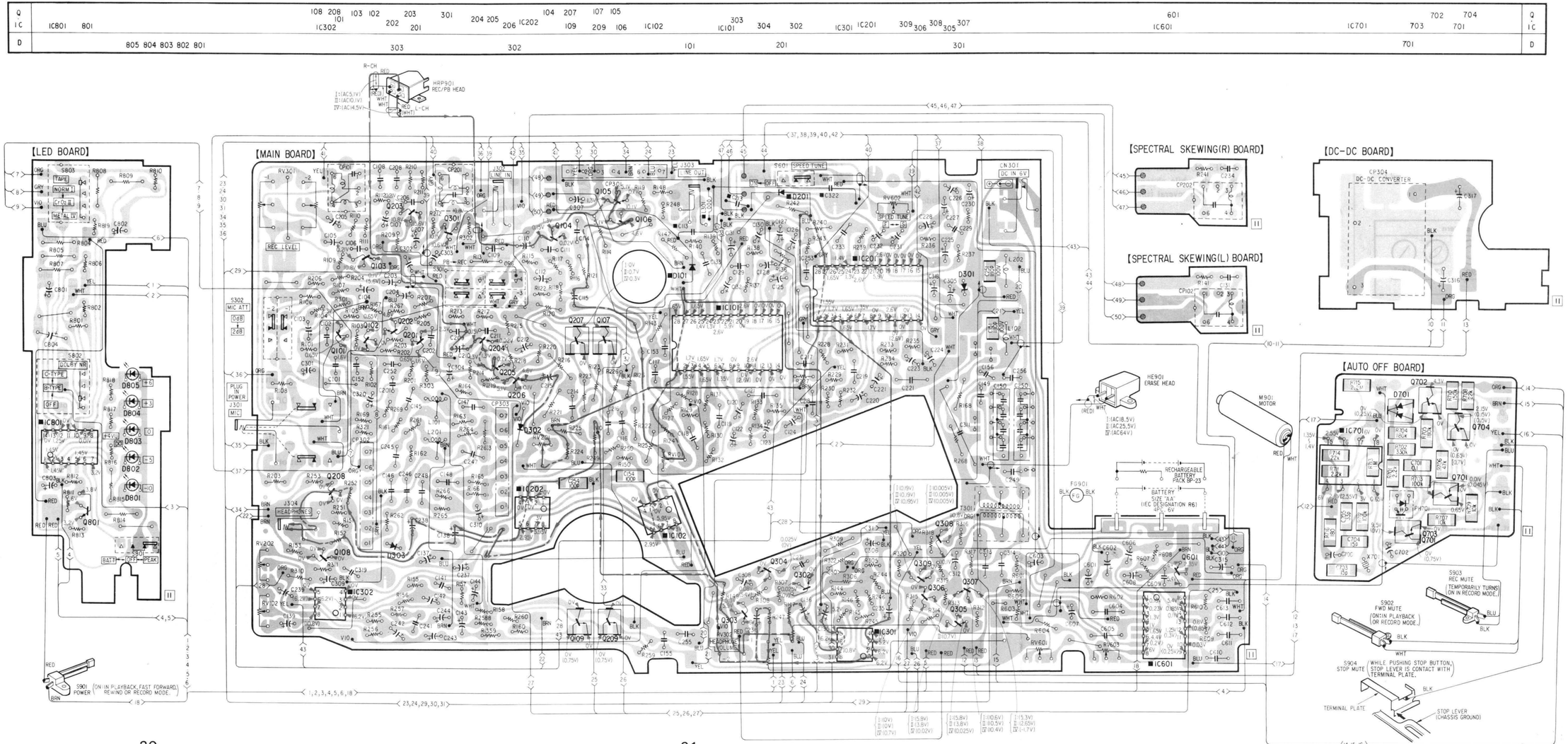
- Components for right channel have same values as for left channel. Reference numbers are coded from 201.
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/6 W unless otherwise noted. kΩ : 1000 Ω, MΩ : 1000 kΩ
- : signal path
- : adjustment for repair.
- : B+ bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions.
  no mark: playback
  ( ) : record
  [ ] : rewind
  < > : fast forward
  (( )) : pause
  I: NORM
  II: $CrO_2$
  IV: METAL
  } TAPE switch
- Voltage variations may be noted due to normal production tolerances.
- AC voltage readings with a VTVM.
- Total current is measured with no cassette installed.

**Note: Voltages are measured with a VOM (50kΩ/V).**

## 4-1. MOUNTING DIAGRAM

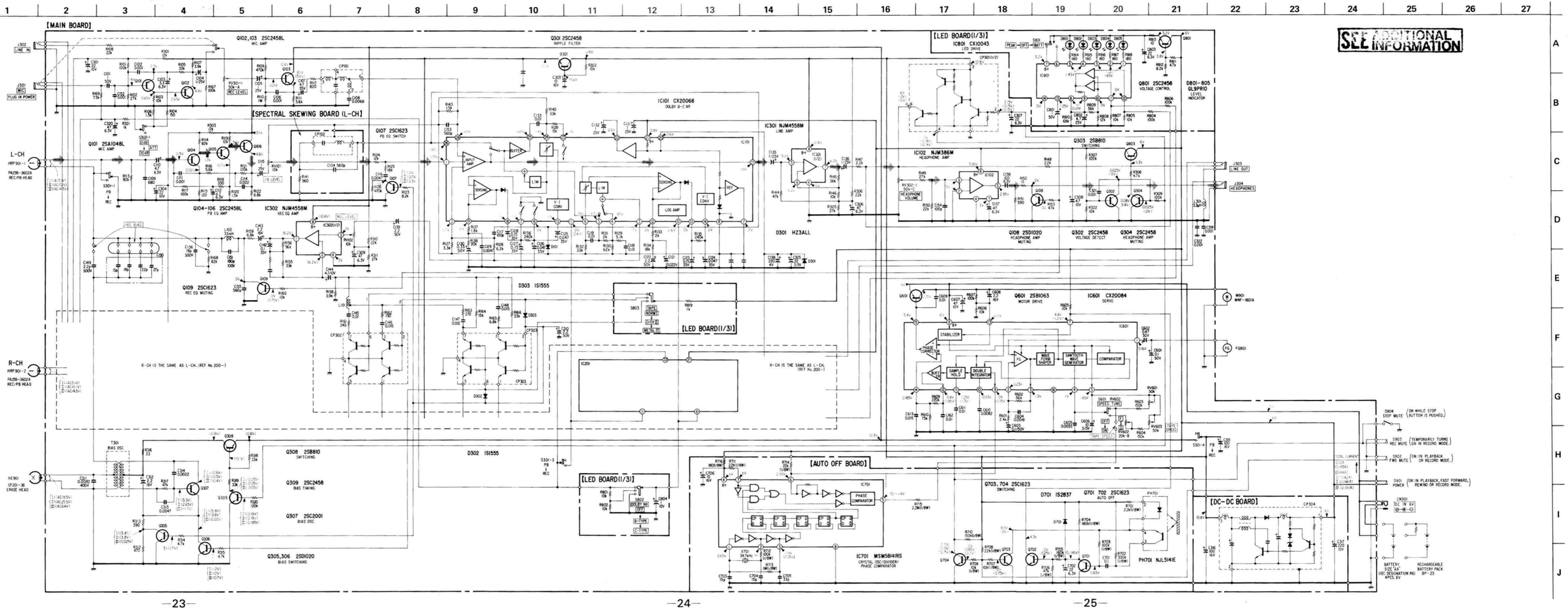
*– Conductor Side –*

- Refer to page 26 for semiconductor lead layouts.
- Refer to page 19 for notes.



4-2. SCHEMATIC DIAGRAM • Refer to page 19 for notes.

WM-D6C/TC-D6C WM-D6C/TC-D6C



SECTION 5
EXPLODED VIEWS AND PARTS LIST

SEE INFORMATION

Semiconductor Lead Layouts

CX10043
CX20068
CX20084
NJM386M
NJM4558M

2SD1020

1S1555
HZ3ALL

MSM58141RS

2SA1048-GR
2SB808
2SC2458
2SC2458L-BL

1S2837

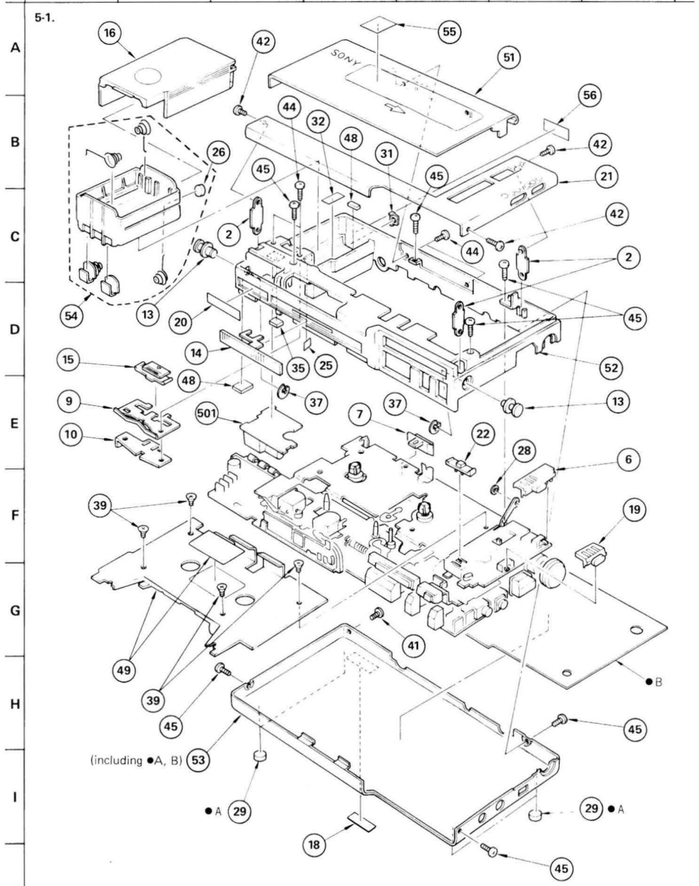
GL9PR10

2SB1013
2SC2001

NJL5141E

2SC1623

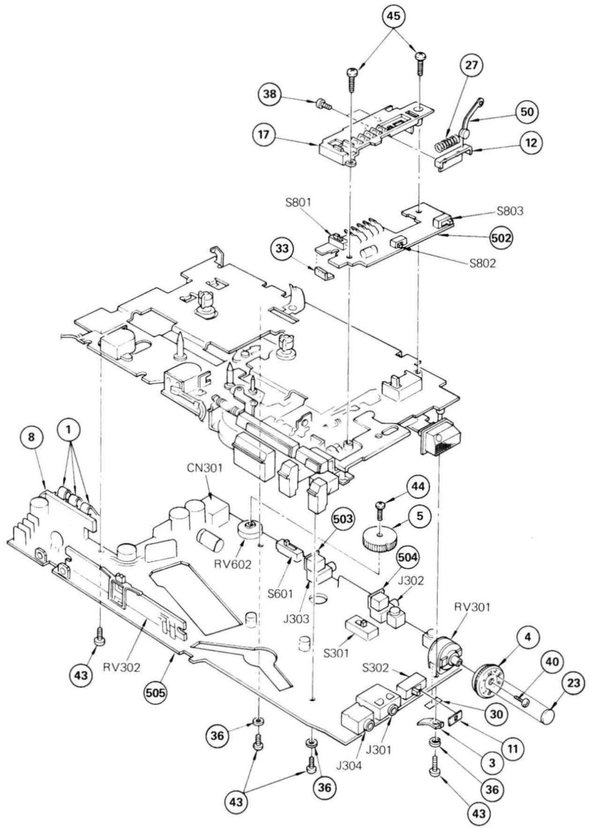
5-1.





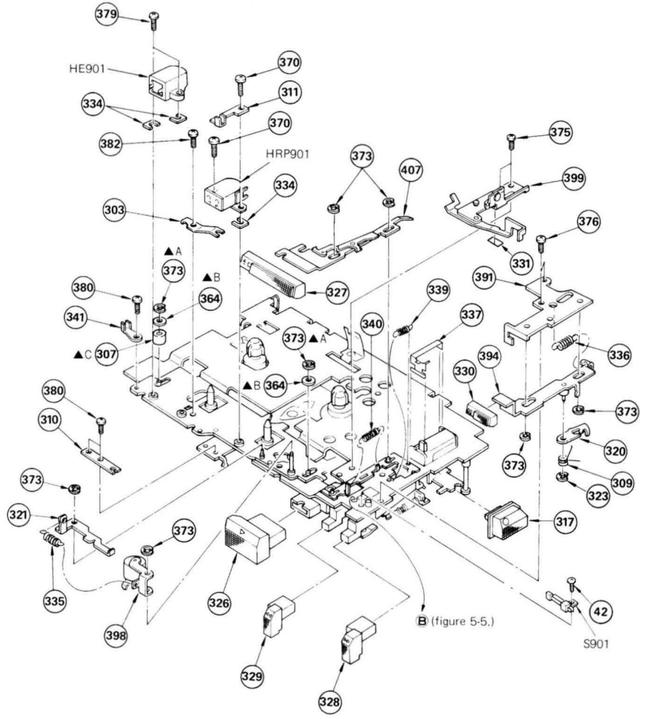



5-2.

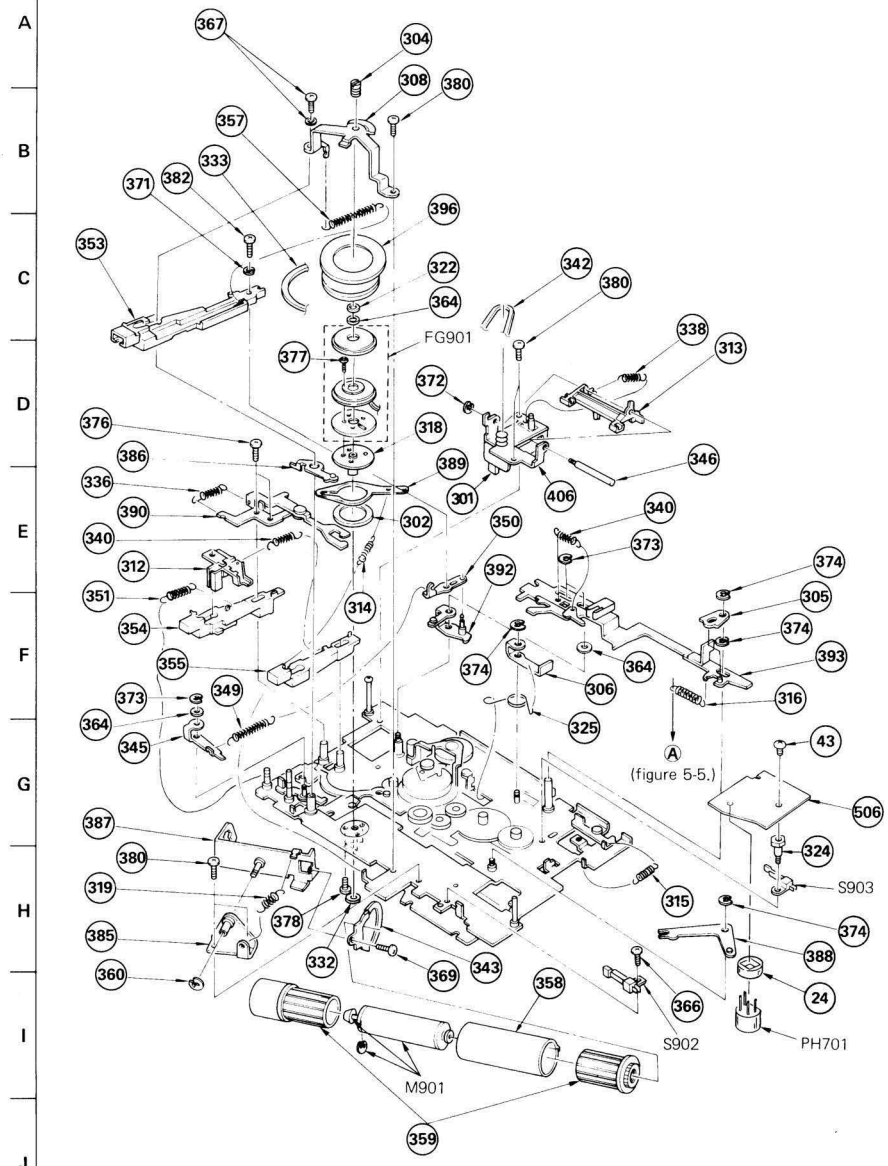




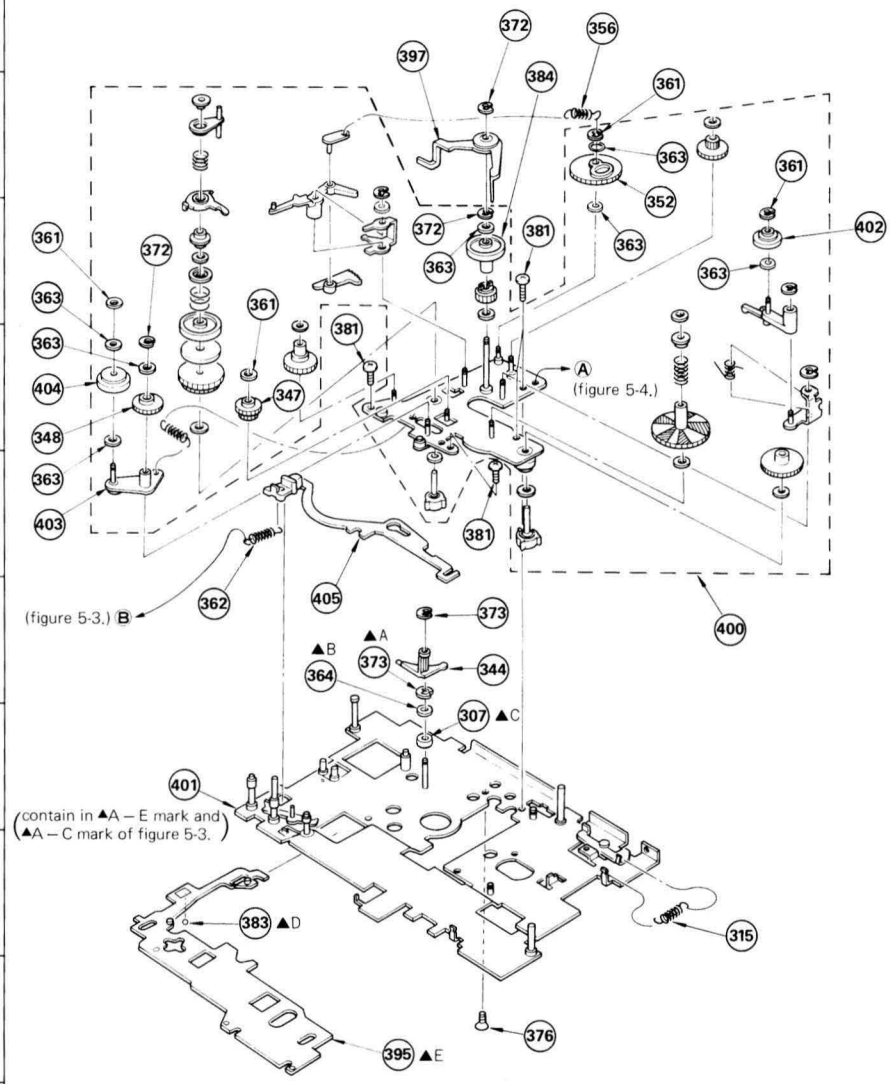

5-3.



5-4.



5-5.


372
356
397
384
361
363
352
361
402
372
363
381
363
361
363
363
404
361
347
381
348
363
403
362
405
373
364
344
307 ▲C
401
(contain in ▲A – E mark and ▲A – C mark of figure 5-3.)
383 ▲D
315
376
395 ▲E
400
(figure 5-3.) B
A (figure 5-4.)

GENERAL SECTION

| No. | Part No. | Description |
|---|---|---|
| 1 | 3-305-801-00 | SPRING |
| 2 | 3-305-802-00 | PLATE, NUT |
| 3 | 3-305-804-00 | SPRING |
| 4 | 3-305-867-00 | KNOB (A), CONTROL, REC |
| 5 | 3-305-868-00 | KNOB, SPEED CONTROL |
| 6 | 3-305-871-11 | KNOB, TAPE SELECTOR |
| 7 | 3-305-872-00 | KNOB, SWITCH, SPEED CONTROL |
| 8 | 3-305-873-00 | TERMINAL BOARD, BATTERY |
| 9 | 3-305-874-00 | SPRING |
| 10 ♦ | 3-305-875-00 | CHASSIS, CLAW, LOCK |
| 11 | 3-305-887-00 | COVER, SWITCH |
| 12 ♦ | 3-305-888-00 | RETAINER |
| 13 | 3-305-889-00 | SHAFT, BELT, CARRYING |
| 14 | 3-305-891-00 | KNOB, CONTROL, SLIDE |
| 15 | 3-305-892-00 | CLAW, LOCK |
| 16 | 3-305-896-00 | CASE, BATTERY |
| 17 | 3-305-897-00 | HOLDER, LED |
| 18 | 3-305-947-00 | LABEL, DOLBY |
| 19 | 3-305-961-01 | KNOB, DOLBY |
| 20 | 3-305-962-01 | LABEL, FRONT |
| 21 | 3-305-963-01 | (WM-D6C)...PANEL, UPPER |
| 21 | 3-305-969-01 | (TC-D6C)...PANEL, UPPER |
| 22 | 3-305-966-01 | KNOB, METER |
| 23 | 3-305-967-01 | PLATE, ORNAMENTAL |
| 24 ♦ | 3-308-430-00 | RETAINER, REFLECTOR, PHOTO |
| 25 | 9-910-840-XX | CUSHION, RELEASE (t=3) |
| 26 | 3-527-126-00 | MARK, BATTERY CASE |
| 27 | 3-557-575-00 | SPRING, COMPRESSION |
| 28 | 3-570-615-00 | POLY-WASHER (DIA.1.2) |
| 29 | 3-570-903-00 | LEG |
| 30 ♦ | 3-572-862-00 | SPACER |
| 31 | 3-574-744-00 | PLATE (B), NUT |
| 32 | 3-701-999-00 | LABEL, SERIAL NUMBER |
| 33 | 3-831-441-XX | SPACER (t=0.5) |
| 34 | 3-831-441-XX | CUSHION (t=0.5) |
| 35 | 3-884-171-00 | STOPPER |
| 36 | 7-623-203-11 | SW 1.4,TYPE 1 |
| 37 | 7-624-106-04 | STOP RING 3.0, TYPE -E |
| 38 | 7-627-451-38 | SCREW, PRECISION +K 1.4X2 |
| 39 | 7-627-551-08 | SCREW, PRECISION +P 1.4X1.6 |
| 40 | 7-627-552-37 | SCREW, PRECISION +P 1.7X3 |
| 41 | 7-627-850-08 | SCREW, PRECISION +P 1.4X2 |
| 42 | 7-627-850-18 | SCREW, PRECISION +P 1.4X2.5 |
| 43 | 7-627-850-27 | SCREW, PRECISION +P 1.4X3 |
| 44 | 7-627-850-28 | SCREW, PRECISION +P 1.4X3 |
| 45 | 7-627-850-58 | SCREW, PRECISION +P 1.4X3.5 |

GENERAL SECTION

| No. | Part No. | Description |
|---|---|---|
| 46 | 9-911-837-XX | SPACER (t=1) |
| 47 | 9-911-841-XX | CUSHION (B)(t=5) |
| 48 | 9-911-845-XX | CUSHION (A)(t=5) |
| 49 | A-3043-068-A | PANEL SUB ASSY, REEL |
| 50 | X-3305-801-0 | ARM ASSY |
| 51 | X-3305-818-0 | LID ASSY, CASSETTE |
| 52 | X-3305-834-1 | CABINET ASSY |
| 53 | X-3305-835-1 | PANEL ASSY, LOWER |
| 54 | X-3564-820-0 | HOLDER ASSY, BATTERY |
| 55 | 3-703-707-01 | STICKER, SONY SYMBOL (21) |
| 56 | 3-305-968-01 | (TC-D6C)...LABEL, MODEL NUMBER |

ACCESSORY & PACKING MATERIAL

| Part No. | Description |
|---|---|
| ⚠ 1-463-138-00 | (TC-D6C)...ADAPTOR, AC (AC-9W) |
| 1-555-658-00 | CORD, CONNECTION (RK-129) |
| 3-305-935-00 | (WM-D6C)...SPACER |
| 3-305-972-00 | (TC-D6C)...SPACER |
| 3-305-973-00 | (TC-D6C)...INDIVIDUAL CARTON |
| 3-305-981-00 | (WM-D6C)...INDIVIDUAL CARTON |
| 3-305-975-00 | (TC-D6C)...CUSHION |
| 3-305-938-00 | (WM-D6C)...CUSHION |
| 3-305-980-00 | (WM-D6C)...COVER, ACCESSORY |
| 3-305-940-00 | BAND, SHOULDER |
| 3-305-970-00 | CASE, CARRYING |
| 3-570-631-71 | BAG, POLYETHYLENE, FOR SET |
| 3-701-618-00 | BAG, POLYETHYLENE, FOR CONNECTION CORD |
| 3-701-625-00 | BAG, POLYETHYLENE, FOR INSTRUCTION MANUAL |
| 3-773-736-11 | (AEP)...MANUAL, INSTRUCTION |
| 3-773-736-21 | (US)....MANUAL, INSTRUCTION |
| 3-773-736-31 | (Canadian,AEP,UK,E)....MANUAL, INSTRUCTION |
| 3-773-766-21 | (TC-D6C).....MANUAL, INSTRUCTION |
| 3-795-748-21 | (US)....SAFETY INSTRUCTIONS, HEADPHONE |
| 8-810-036-90 | (TC-D6C)...ECM-939LT SET |
| 8-951-173-90 | (WM-D6C)...MDR-40L SET |

NOTE:

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- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

COILS

- MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MECHANISM SECTION

| No. | Part No. | Description |
|---|---|---|
| 301 | 1-548-516-41 | TIMER, TAPE |
| 302 ♦ | 3-305-807-00 | RING, MOTOR LEVER |
| 303 | 3-305-808-00 | SPRING |
| 304 | 3-305-810-00 | SCREW, THRUST ADJUSTMENT |
| 305 | 3-305-812-00 | LEVER (C), REC |
| 306 ♦ | 3-305-815-00 | LEVER (A), MUTING |
| 307 | 3-305-839-00 | ROLLER (SMALL) |
| 308 | 3-305-846-00 | RETAINER, THRUST |
| 309 | 3-305-856-00 | SPRING |
| 310 ♦ | 3-305-857-00 | RETAINER, FG LEAD WIRE |
| 311 | 3-305-858-00 | CLAMP, LEAD WIRE |
| 312 | 3-305-863-00 | HOLDER, LEAD WIRE |
| 313 | 3-305-865-00 | PLATE, LOCK |
| 314 | 3-305-901-00 | SPRING, TENSION |
| 315 | 3-305-902-00 | SPRING, TENSION |
| 316 | 3-305-903-00 | SPRING, TENSION |
| 317 | 3-305-908-00 | BUTTON, REC |
| 318 | 3-305-910-00 | BEARING (A), CAPSTAN |
| 319 | 3-305-914-00 | SPRING, TENSION |
| 320 | 3-305-915-00 | PLATE, LOCK, PAUSE |
| 321 | 3-305-917-00 | PLATE (B), RELEASE, PINCH |
| 322 | 3-305-925-00 | WASHER |
| 323 | 3-305-926-00 | POLY-WASHER, 1.7DIA |
| 324 | 3-305-952-01 | SCREW, SWITCH |
| 325 | 3-305-953-01 | SPRING |
| 326 | 3-305-956-01 | BUTTON, FWD |
| 327 | 3-305-957-01 | BUTTON, STOP |
| 328 | 3-305-958-01 | BUTTON, FF |
| 329 | 3-305-959-01 | BUTTON, REW |
| 330 | 3-305-960-01 | BUTTON, PAUSE |
| 331 ♦ | 3-309-729-00 | SHEET, LEAF SWITCH |
| 332 | 3-314-576-00 | WASHER |
| 333 | 3-480-136-00 | BELT (B) |
| 334 | 3-513-237-01 | PLATE |
| 335 | 3-527-189-00 | SPRING, TENSION |
| 336 | 3-527-190-00 | SPRING, TENSION |
| 337 ♦ | 3-305-971-01 | TERMINAL PLATE |
| 338 | 3-547-666-00 | SPRING, TENSION |
| 339 | 3-547-667-00 | SPRING, TENSION |
| 340 | 3-547-669-00 | SPRING, TENSION |
| 341 ♦ | 3-547-686-00 | CLAMP (B), WIRE |
| 342 | 3-554-103-00 | BELT, DRIVING |
| 343 ♦ | 3-556-269-00 | BRACKET (B), M |
| 344 | 3-557-402-00 | LEVER (C), RELEASE |
| 345 | 3-557-405-00 | LEVER, SPRING HOOK |

MECHANISM SECTION

| No. | Part No. | Description |
|---|---|---|
| 346 | 3-557-408-00 | SHAFT, LOCK PLATE |
| 347 | 3-557-439-00 | GEAR (A), F.R |
| 348 | 3-557-440-00 | GEAR (B), F.R |
| 349 | 3-557-495-00 | SPRING, TENSION |
| 350 | 3-557-497-00 | ARM, JOINT |
| 351 | 3-557-498-00 | SPRING, TENSION |
| 352 | 3-557-509-00 | GEAR (3) |
| 353 | 3-557-514-00 | LEVER, FWD |
| 354 | 3-557-515-00 | LEVER, FF |
| 355 | 3-557-516-00 | LEVER, REWIND |
| 356 | 3-557-579-00 | SPRING, TENSION |
| 357 | 3-557-581-00 | SPRING, TENSION |
| 358 ♦ | 3-557-805-00 | CASE, SHIELD, M |
| 359 ♦ | 3-557-813-00 | RUBBER, VIBRATION PROOF |
| 360 | 3-558-708-21 | WASHER, STOPPER |
| 361 | 3-559-408-00 | POLY-WASHER, 1.2 DIA |
| 362 | 3-570-894-00 | SPRING, TENSION |
| 363 | 3-701-436-01 | WASHER, 1.6 (t=0.13) |
| 364 | 3-701-437-01 | WASHER, 2 (t=0.13) |
| 365 | ..... | |
| 366 | 3-703-502-22 | SCREW |
| 367 | 3-703-502-32 | SCREW |
| 368 | 3-831-441-XX | SPACER (t=0.5) |
| 369 | 7-621-255-15 | SCREW +P 2X3 |
| 370 | 7-621-255-25 | SCREW +P 2X4 |
| 371 | 7-623-203-11 | SW 1.4, TYPE 1 |
| 372 | 7-624-101-01 | RING, RETAINING E-1.2 |
| 373 | 7-624-102-04 | STOP RING 1.5, TYPE -E |
| 374 | 7-624-104-04 | STOP RING 2.0, TYPE -E |
| 375 | 7-627-451-08 | SCREW, PRECISION +K 1.4X1.6 |
| 376 | 7-627-451-27 | SCREW, PRECISION +K 1.4X3 |
| 377 | 7-627-551-57 | SCREW, PRECISION +P 1.4X3 |
| 378 | 7-627-551-78 | SCREW, PRECISION +P 1.4X4 |
| 379 | 7-627-553-57 | SCREW, PRECISION +P 2X4.5 |
| 380 | 7-627-850-07 | SCREW, PRECISION +P 1.4X2 |
| 381 | 7-627-850-47 | SCREW, PRECISION +P 1.4X1.6 |
| 382 | 7-627-851-27 | SCREW, PRECISION +P 1.4X5 |
| 383 | 7-671-111-01 | STEEL BALL 1MM |
| 384 | X-3305-804-0 | PULLEY ASSY, MIDWAY |
| 385 ♦ | X-3305-806-0 | BRACKET ASSY, MOTOR SHAFT |
| 386 | X-3305-807-0 | LEVER (A) ASSY, MOTOR |
| 387 ♦ | X-3305-808-0 | BRACKET ASSY, MOTOR |
| 388 | X-3305-809-0 | LEVER (C) ASSY, MOTOR |
| 389 | X-3305-810-0 | LEVER (B) ASSY, MOTOR |
| 390 | X-3305-811-0 | CHASSIS ASSY, SO |

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- MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

SEE ADDITIONAL INFORMATION

## MECHANISM SECTION

| No. | Part No. | Description |
|---|---|---|
| 391 | X-3305-812-0 | CHASSIS ASSY, PAUSE |
| 392 | X-3305-813-0 | LEVER (B) ASSY, REC |
| 393 | X-3305-814-0 | LEVER (A) ASSY, REC |
| 394 | X-3305-821-0 | LEVER ASSY, PAUSE |
| 395 ♦ | X-3305-823-0 | CHASSIS ASSY, HEAD |
| 396 | X-3305-824-0 | FLYWHEEL BLOCK ASSY |
| 397 ♦ | X-3305-826-0 | LEVER ASSY, PREVENTION, SO |
| 398 | X-3305-827-0 | PINCH LEVER ASSY |
| 399 | X-3305-828-0 | TABLE ASSY, EJECT LEVER |
| 400 | X-3305-832-1 | TABLE COMPLETE ASSY, BEARING |
| 401 ♦ | X-3305-833-1 | CHASSIS ASSY, MECHANICAL |
| 402 | X-3557-407-0 | IDLER ASSY, FWD |
| 403 ♦ | X-3557-408-0 | LEVER (B) ASSY, F.R |
| 404 | X-3557-409-0 | PULLEY ASSY, F.R |
| 405 | X-3557-411-0 | LEVER (A) ASSY, F.R |
| 406 | X-3557-433-0 | BRACKET ASSY, COUNTER |
| 407 | X-3568-702-0 | LEVER ASSY, STOP |

## ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| 501 ♦ | 1-611-493-11 | PC BOARD, DC-DC | | | |
| 502 ♦ | 1-611-495-11 | PC BOARD, LED | | | |
| 503 ♦ | 1-611-909-11 | PC BOARD, SPECTRAL SKEWING (R) | | | |
| 504 ♦ | 1-611-910-11 | PC BOARD, SPECTRAL SKEWING (L) | | | |
| 505 ♦ | A-3068-070-A | MOUNTED PCB, MAIN | | | |
| 506 ♦ | A-3068-074-A | MOUNTED PCB, AUTO-OFF | | | |
| C101 | 1-124-499-00 | ELECT | 1MF | 20% | 50V |
| C102 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V |
| C103 | 1-131-386-00 | TANTALUM | 33MF | 20% | 6.3V |
| C104 | 1-131-408-00 | TANTALUM | 1MF | 20% | 35V |
| C105 | 1-131-408-00 | TANTALUM | 1MF | 20% | 35V |
| C106 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V |
| C107 | 1-123-615-00 | ELECT | 4.7MF | 20% | 35V |
| C108 | 1-161-011-00 | CERAMIC | 0.0068MF | 10% | 25V |
| C109 | 1-102-116-00 | CERAMIC | 680PF | 10% | 50V |
| C110 | 1-131-375-00 | TANTALUM | 4.7MF | 20% | 10V |
| C111 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V |
| C112 | 1-131-375-00 | TANTALUM | 4.7MF | 20% | 10V |
| C113 | 1-102-115-00 | CERAMIC | 560PF | 10% | 50V |
| C114 | 1-130-487-00 | MYLAR | 0.022MF | 5% | 50V |
| C115 | 1-131-408-00 | TANTALUM | 1MF | 20% | 35V |
| C116 | 1-130-479-00 | MYLAR | 0.0047MF | 5% | 50V |
| C117 | 1-102-106-00 | CERAMIC | 100PF | 10% | 50V |
| C118 | 1-130-483-00 | MYLAR | 0.01MF | 5% | 50V |

## ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| C119 | 1-130-483-00 | MYLAR | 0.01MF | 5% | 50V |
| C120 | 1-131-389-00 | TANTALUM | 10MF | 20% | 3.15V |
| C121 | 1-161-017-00 | CERAMIC | 0.022MF | 10% | 25V |
| C122 | 1-124-257-00 | ELECT | 2.2MF | 20% | 50V |
| C123 | 1-131-342-00 | TANTALUM | 0.15MF | 10% | 35V |
| C124 | 1-131-400-00 | TANTALUM | 0.047MF | 20% | 35V |
| C125 | 1-131-400-00 | TANTALUM | 0.047MF | 20% | 35V |
| C126 | 1-131-400-00 | TANTALUM | 0.047MF | 20% | 35V |
| C127 | 1-131-342-00 | TANTALUM | 0.15MF | 10% | 35V |
| C128 | 1-131-342-00 | TANTALUM | 0.15MF | 10% | 35V |
| C129 | 1-161-009-00 | CERAMIC | 0.0047MF | 10% | 25V |
| C130 | 1-124-252-00 | ELECT | 0.33MF | 20% | 50V |
| C131 | 1-131-408-00 | TANTALUM | 1MF | 20% | 35V |
| C132 | 1-131-408-00 | TANTALUM | 1MF | 20% | 35V |
| C133 | 1-130-483-00 | MYLAR | 0.01MF | 5% | 50V |
| C134 | 1-102-115-00 | CERAMIC | 560PF | 10% | 50V |
| C135 | 1-131-408-00 | TANTALUM | 1MF | 20% | 35V |
| C136 | 1-131-408-00 | TANTALUM | 1MF | 20% | 35V |
| C137 | 1-124-224-00 | ELECT | 47MF | 20% | 6.3V |
| C138 | 1-123-661-00 | ELECT | 100MF | 20% | 6.3V |
| C139 | 1-124-257-00 | ELECT | 2.2MF | 20% | 50V |
| C141 | 1-102-116-00 | CERAMIC | 680PF | 10% | 50V |
| C142 | 1-131-341-00 | TANTALUM | 0.1MF | 20% | 35V |
| C143 | 1-131-361-00 | TANTALUM | 2.2MF | 20% | 20V |
| C144 | 1-131-375-00 | TANTALUM | 4.7MF | 20% | 10V |
| C145 | 1-130-483-00 | MYLAR | 0.01MF | 5% | 50V |
| C146 | 1-130-485-00 | MYLAR | 0.015MF | 5% | 50V |
| C147 | 1-130-484-00 | MYLAR | 0.012MF | 5% | 50V |
| C148 | 1-130-485-00 | MYLAR | 0.015MF | 5% | 50V |
| C149 | 1-107-042-00 | MICA | 2.2PF | | 500V |
| C150 | 1-107-323-00 | MICA CAPACITOR UNIT | | | |
| C151 | 1-163-988-00 | CERAMIC CHIP | 180PF | 5% | 100V |
| C152 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V |
| C153 | 1-102-115-00 | CERAMIC | 560PF | 10% | 50V |
| C154 | 1-163-181-00 | CERAMIC CHIP | 100PF | 5% | 50V |
| C155 | 1-102-115-00 | CERAMIC | 560PF | 10% | 50V |
| C156 | 1-107-208-00 | MICA | 18PF | 5% | 500V |
| C301 | 1-124-228-00 | ELECT | 22MF | 20% | 10V |
| C302 | 1-131-371-00 | TANTALUM | 10MF | 20% | 16V |
| C303 | 1-123-617-00 | ELECT | 10MF | 20% | 16V |
| C304 | 1-124-228-00 | ELECT | 22MF | 20% | 10V |
| C305 | 1-131-391-00 | TANTALUM | 22MF | 20% | 3.15V |
| C306 | 1-124-224-00 | ELECT | 47MF | 20% | 6.3V |
| C307 | 1-123-618-00 | ELECT | 22MF | 20% | 6.3V |
| C308 | 1-131-375-00 | TANTALUM | 4.7MF | 20% | 10V |

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CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

COILS

- MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

ADDITIONAL INFORMATION

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| C309 | 1-124-224-00 | ELECT | 47MF | 20% | 6.3V |
| C310 | 1-123-612-00 | ELECT | 2.2MF | 20% | 50V |
| C311 | 1-130-896-00 | FILM | 0.0082MF | 5% | 400V |
| C312 | 1-131-361-00 | TANTALUM | 2.2MF | 20% | 20V |
| C313 | 1-130-479-00 | MYLAR | 0.0047MF | 5% | 50V |
| C314 | 1-161-005-00 | CERAMIC | 0.0022MF | 10% | 25V |
| C315 | 1-123-320-00 | ELECT | 100MF | 20% | 16V |
| C316 | 1-123-320-00 | ELECT | 100MF | 20% | 16V |
| C317 | 1-123-308-00 | ELECT | 220MF | 20% | 10V |
| C318 | 1-123-827-00 | ELECT | 220MF | 20% | 4V |
| C319 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V |
| C320 | 1-124-224-00 | ELECT | 47MF | 20% | 6.3V |
| C321 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V |
| C322 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V |
| C601 | 1-123-607-00 | ELECT | 0.1MF | 20% | 50V |
| C602 | 1-123-610-00 | ELECT | 0.47MF | 20% | 50V |
| C603 | 1-123-607-00 | ELECT | 0.1MF | 20% | 50V |
| C604 | 1-102-120-00 | CERAMIC | 0.0018MF | 10% | 50V |
| C605 | 1-130-865-00 | FILM | 0.0033MF | 5% | 50V |
| C606 | 1-131-389-00 | TANTALUM | 10MF | 20% | 3.15V |
| C607 | 1-123-822-00 | ELECT | 47MF | 20% | 10V |
| C608 | 1-131-361-00 | TANTALUM | 2.2MF | 20% | 20V |
| C609 | 1-161-013-00 | CERAMIC | 0.01MF | 10% | 25V |
| C610 | 1-130-482-00 | MYLAR | 0.0082MF | 5% | 50V |
| C611 | 1-130-483-00 | MYLAR | 0.01MF | 5% | 50V |
| C612 | 1-130-483-00 | MYLAR | 0.01MF | 5% | 50V |
| C613 | 1-130-485-00 | MYLAR | 0.015MF | 5% | 50V |
| C701 | 1-163-077-00 | CERAMIC CHIP | 0.1MF | | 50V |
| C702 | 1-123-618-00 | ELECT | 22MF | 20% | 6.3V |
| C703 | 1-163-161-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C704 | 1-163-161-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C705 | 1-163-169-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C706 | 1-123-617-00 | ELECT | 10MF | 20% | 16V |
| C801 | 1-124-255-00 | ELECT | 1MF | 20% | 50V |
| C802 | 1-124-238-00 | ELECT | 4.7MF | 20% | 25V |
| C803 | 1-123-618-00 | ELECT | 22MF | 20% | 6.3V |
| C804 | 1-131-418-00 | TANTALUM | 1MF | 20% | 10V |
| CN301 | 1-507-749-00 | JACK, EXTENTION POWER (DC IN 6V) | | | |
| CP101 | 1-235-317-11 | FILTER, LOW PASS | | | |
| CP102 | 1-235-318-11 | FILTER, SP-SK | | | |
| CP201 | 1-235-317-11 | FILTER, LOW PASS | | | |
| CP202 | 1-235-318-11 | FILTER, SP-SK | | | |
| CP301 | 1-464-177-00 | CIRCUIT UNIT, MUTING | | | |
| CP302 | 1-464-176-00 | CIRCUIT UNIT, SWITCHING | | | |
| CP303 | 1-464-176-00 | CIRCUIT UNIT, SWITCHING | | | |
| CP304 | 1-464-183-21 | CONVERTER UNIT, DC-DC | | | |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description |
|---|---|---|
| D101 | 8-719-815-55 | DIODE 1S1555 |
| D201 | 8-719-815-55 | DIODE 1S1555 |
| D301 | 8-719-942-31 | DIODE HZ3ALL |
| D302 | 8-719-815-55 | DIODE 1S1555 |
| D303 | 8-719-815-55 | DIODE 1S1555 |
| D701 | 8-719-100-05 | DIODE 1S2837 |
| D801 | 8-719-909-10 | DIODE GL9PR10 |
| D802 | 8-719-909-10 | DIODE GL9PR10 |
| D803 | 8-719-909-10 | DIODE GL9PR10 |
| D804 | 8-719-909-10 | DIODE GL9PR10 |
| D805 | 8-719-909-10 | DIODE GL9PR10 |
| FG901 | A-3164-245-A | COIL SUB ASSY, FG |
| HE901 | 8-825-724-00 | HEAD, ERASE EF-201-36 |
| HRP901 | 8-825-529-60 | HEAD, REC/PB (PA259-3602A) |
| IC101 | 8-752-006-80 | IC CX20068 |
| IC102 | 8-759-700-50 | IC NJM386M |
| IC201 | 8-752-006-80 | IC CX20068 |
| IC202 | 8-759-700-50 | IC NJM386M |
| IC301 | 8-759-700-43 | IC NJM4558M |
| IC302 | 8-759-700-43 | IC NJM4558M |
| IC601 | 8-759-909-45 | IC CX20084 |
| IC701 | 8-759-958-14 | IC MSM58141RS |
| IC801 | 8-759-909-40 | IC CX10043 |
| J301 | 1-507-794-31 | JACK, SMALL TYPE (WITH SWITCH)(MIC) |
| J302 | 1-507-929-21 | JACK (LINE IN) |
| J303 | 1-507-929-21 | JACK (LINE OUT) |
| J304 | 1-507-929-11 | JACK (HEAD PHONES) |
| L101 | 1-408-682-00 | MICRO INDUCTOR 10MMH |
| L102 | 1-408-704-00 | MICRO INDUCTOR 33MMH |
| L201 | 1-408-682-00 | MICRO INDUCTOR 10MMH |
| L202 | 1-408-704-00 | MICRO INDUCTOR 33MMH |
| L301 | 1-408-557-00 | MICRO INDUCTOR 3.3UH |
| M901 | X-3305-830-1 | MOTOR ASSY (MNF-1601A) |
| PH701 | 8-719-751-42 | DIODE NJL5141E |
| Q101 | 8-729-204-83 | TRANSISTOR 2SA1048-GR |
| Q102 | 8-729-205-84 | TRANSISTOR 2SC2458L-BL |
| Q103 | 8-729-205-84 | TRANSISTOR 2SC2458L-BL |
| Q104 | 8-729-205-84 | TRANSISTOR 2SC2458L-BL |
| Q105 | 8-729-205-84 | TRANSISTOR 2SC2458L-BL |
| Q106 | 8-729-205-84 | TRANSISTOR 2SC2458L-BL |
| Q107 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q108 | 8-729-102-03 | TRANSISTOR 2SD1020 |
| Q109 | 8-729-100-66 | TRANSISTOR 2SC1623 |

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COILS

- MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

SERVICE INFORMATION

ELECTRICAL PARTS

| Ref.No. | Part No. | Description |
|---|---|---|
| Q201 | 8-729-204-83 | TRANSISTOR 2SA1048-GR |
| Q202 | 8-729-205-84 | TRANSISTOR 2SC2458L-BL |
| Q203 | 8-729-205-84 | TRANSISTOR 2SC2458L-BL |
| Q204 | 8-729-205-84 | TRANSISTOR 2SC2458L-BL |
| Q205 | 8-729-205-84 | TRANSISTOR 2SC2458L-BL |
| Q206 | 8-729-205-84 | TRANSISTOR 2SC2458L-BL |
| Q207 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q208 | 8-729-102-03 | TRANSISTOR 2SD1020 |
| Q209 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q301 | 8-729-245-83 | TRANSISTOR 2SC2458 |
| Q302 | 8-729-245-83 | TRANSISTOR 2SC2458 |
| Q303 | 8-729-800-83 | TRANSISTOR 2SB808 |
| Q304 | 8-729-245-83 | TRANSISTOR 2SC2458 |
| Q305 | 8-729-102-03 | TRANSISTOR 2SD1020 |
| Q306 | 8-729-102-03 | TRANSISTOR 2SD1020 |
| Q307 | 8-729-100-13 | TRANSISTOR 2SC2001 |
| Q308 | 8-729-800-83 | TRANSISTOR 2SB808 |
| Q309 | 8-729-245-83 | TRANSISTOR 2SC2458 |
| Q601 | 8-729-801-83 | TRANSISTOR 2SB1013 |
| Q701 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q702 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q703 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q704 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q801 | 8-729-245-83 | TRANSISTOR 2SC2458 |
| R101 | 1-247-879-00 | CARBON 100K 5% 1/6W |
| R102 | 1-247-865-00 | CARBON 27K 5% 1/6W |
| R103 | 1-247-855-00 | CARBON 10K 5% 1/6W |
| R104 | 1-247-811-00 | CARBON 150 5% 1/6W |
| R105 | 1-247-867-00 | CARBON 33K 5% 1/6W |
| R106 | 1-247-835-00 | CARBON 1.5K 5% 1/6W |
| R107 | 1-247-845-00 | CARBON 3.9K 5% 1/6W |
| R108 | 1-247-863-00 | CARBON 22K 5% 1/6W |
| R109 | 1-247-895-00 | CARBON 470K 5% 1/6W |
| R110 | 1-247-903-00 | CARBON 1M 5% 1/6W |
| R111 | 1-247-849-00 | CARBON 5.6K 5% 1/6W |
| R112 | 1-247-829-00 | CARBON 820 5% 1/6W |
| R113 | 1-247-877-00 | CARBON 82K 5% 1/6W |
| R114 | 1-247-877-00 | CARBON 82K 5% 1/6W |
| R115 | 1-247-809-00 | CARBON 120 5% 1/6W |
| R116 | 1-247-849-00 | CARBON 5.6K 5% 1/6W |
| R117 | 1-247-879-00 | CARBON 100K 5% 1/6W |
| R118 | 1-247-819-00 | CARBON 330 5% 1/6W |
| R119 | 1-247-857-00 | CARBON 12K 5% 1/6W |
| R120 | 1-247-835-00 | CARBON 1.5K 5% 1/6W |
| R121 | 1-247-881-00 | CARBON 120K 5% 1/6W |

ELECTRICAL PARTS

| Ref.No. | Part No. | Description |
|---|---|---|
| R122 | 1-247-851-00 | CARBON 6.8K 5% 1/6W |
| R123 | 1-247-853-00 | CARBON 8.2K 5% 1/6W |
| R124 | 1-247-857-00 | CARBON 12K 5% 1/6W |
| R125 | 1-247-861-00 | CARBON 18K 5% 1/6W |
| R126 | 1-247-895-00 | CARBON 470K 5% 1/6W |
| R127 | 1-247-843-00 | CARBON 3.3K 5% 1/6W |
| R128 | 1-247-850-00 | CARBON 6.2K 5% 1/6W |
| R129 | 1-247-848-00 | CARBON 5.1K 5% 1/6W |
| R130 | 1-247-874-00 | CARBON 62K 5% 1/6W |
| R131 | 1-247-838-00 | CARBON 2K 5% 1/6W |
| R132 | 1-247-867-00 | CARBON 33K 5% 1/6W |
| R133 | 1-247-838-00 | CARBON 2K 5% 1/6W |
| R134 | 1-247-861-00 | CARBON 18K 5% 1/6W |
| R135 | 1-247-888-00 | CARBON 240K 5% 1/6W |
| R136 | 1-247-888-00 | CARBON 240K 5% 1/6W |
| R137 | 1-247-837-00 | CARBON 1.8K 5% 1/6W |
| R138 | 1-247-862-00 | CARBON 20K 5% 1/6W |
| R139 | 1-247-859-00 | CARBON 15K 5% 1/6W |
| R140 | 1-247-867-00 | CARBON 33K 5% 1/6W |
| R141 | 1-247-825-00 | CARBON 560 5% 1/6W |
| R142 | 1-247-838-00 | CARBON 2K 5% 1/6W |
| R143 | 1-247-835-00 | CARBON 1.5K 5% 1/6W |
| R144 | 1-247-871-00 | CARBON 47K 5% 1/6W |
| R145 | 1-247-873-00 | CARBON 56K 5% 1/6W |
| R146 | 1-247-855-00 | CARBON 10K 5% 1/6W |
| R147 | 1-247-839-00 | CARBON 2.2K 5% 1/6W |
| R148 | 1-247-839-00 | CARBON 2.2K 5% 1/6W |
| R149 | 1-247-865-00 | CARBON 27K 5% 1/6W |
| R150 | 1-247-863-00 | CARBON 22K 5% 1/6W |
| R151 | 1-247-821-00 | CARBON 390 5% 1/6W |
| R152 | 1-247-787-00 | CARBON 15 5% 1/6W |
| R153 | 1-247-847-00 | CARBON 4.7K 5% 1/6W |
| R155 | 1-247-867-00 | CARBON 33K 5% 1/6W |
| R156 | 1-247-873-00 | CARBON 56K 5% 1/6W |
| R157 | 1-247-879-00 | CARBON 100K 5% 1/6W |
| R158 | 1-247-845-00 | CARBON 3.9K 5% 1/6W |
| R159 | 1-247-851-00 | CARBON 6.8K 5% 1/6W |
| R160 | 1-247-855-00 | CARBON 10K 5% 1/6W |
| R161 | 1-247-816-00 | CARBON 240 5% 1/6W |
| R162 | 1-247-811-00 | CARBON 150 5% 1/6W |
| R163 | 1-247-817-00 | CARBON 270 5% 1/6W |
| R164 | 1-247-859-00 | CARBON 15K 5% 1/6W |
| R165 | 1-247-851-00 | CARBON 6.8K 5% 1/6W |
| R166 | 1-247-867-00 | CARBON 33K 5% 1/6W |
| R167 | 1-247-879-00 | CARBON 100K 5% 1/6W |

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
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CAPACITORS:

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COILS

- MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC, UPD···: μPD···

ELECTRICAL PARTS

| Ref.No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R168 | 1-247-877-00 | CARBON | 82K | 5% | 1/6W |
| R169 | 1-247-852-00 | CARBON | 7.5K | 5% | 1/6W |
| R301 | 1-247-857-00 | CARBON | 12K | 5% | 1/6W |
| R302 | 1-247-855-00 | CARBON | 10K | 5% | 1/6W |
| R303 | 1-247-857-00 | CARBON | 12K | 5% | 1/6W |
| R305 | 1-247-865-00 | CARBON | 27K | 5% | 1/6W |
| R306 | 1-247-863-00 | CARBON | 22K | 5% | 1/6W |
| R307 | 1-247-879-00 | CARBON | 100K | 5% | 1/6W |
| R308 | 1-247-847-00 | CARBON | 4.7K | 5% | 1/6W |
| R309 | 1-247-879-00 | CARBON | 100K | 5% | 1/6W |
| R310 | 1-247-863-00 | CARBON | 22K | 5% | 1/6W |
| R311 | 1-247-865-00 | CARBON | 27K | 5% | 1/6W |
| R312 | 1-247-823-00 | CARBON | 470 | 5% | 1/6W |
| R313 | 1-247-821-00 | CARBON | 390 | 5% | 1/6W |
| R314 | 1-247-847-00 | CARBON | 4.7K | 5% | 1/6W |
| R315 | 1-247-847-00 | CARBON | 4.7K | 5% | 1/6W |
| R316 | 1-247-795-00 | CARBON | 33 | 5% | 1/6W |
| R317 | 1-247-871-00 | CARBON | 47K | 5% | 1/6W |
| R318 | 1-247-867-00 | CARBON | 33K | 5% | 1/6W |
| R319 | 1-247-867-00 | CARBON | 33K | 5% | 1/6W |
| R320 | 1-247-881-00 | CARBON | 120K | 5% | 1/6W |
| R321 | 1-247-831-00 | CARBON | 1K | 5% | 1/6W |
| R322 | 1-247-855-00 | CARBON | 10K | 5% | 1/6W |
| R601 | 1-247-840-00 | CARBON | 2.4K | 5% | 1/6W |
| R602 | 1-247-873-00 | CARBON | 56K | 5% | 1/6W |
| R603 | 1-214-781-00 | METAL | 150K | 1% | 1/4W |
| R604 | 1-214-781-00 | METAL | 150K | 1% | 1/4W |
| R605 | 1-247-855-00 | CARBON | 10K | 5% | 1/6W |
| R607 | 1-247-879-00 | CARBON | 100K | 5% | 1/6W |
| R608 | 1-247-855-00 | CARBON | 10K | 5% | 1/6W |
| R609 | 1-247-887-00 | CARBON | 220K | 5% | 1/6W |
| R610 | 1-247-876-00 | CARBON | 75K | 5% | 1/6W |
| R701 | 1-216-206-00 | METAL CHIP | 2.2K | 5% | 1/8W |
| R702 | 1-216-258-00 | METAL CHIP | 330K | 5% | 1/8W |
| R703 | 1-216-246-00 | METAL CHIP | 100K | 5% | 1/8W |
| R704 | 1-216-252-00 | METAL CHIP | 180K | 5% | 1/8W |
| R705 | 1-216-252-00 | METAL CHIP | 180K | 5% | 1/8W |
| R706 | 1-216-238-00 | METAL CHIP | 47K | 5% | 1/8W |
| R707 | 1-216-222-00 | METAL CHIP | 10K | 5% | 1/8W |
| R708 | 1-216-230-00 | METAL CHIP | 22K | 5% | 1/8W |
| R709 | 1-216-222-00 | METAL CHIP | 10K | 5% | 1/8W |
| R710 | 1-216-250-00 | METAL CHIP | 150K | 5% | 1/8W |
| R711 | 1-216-206-00 | METAL CHIP | 2.2K | 5% | 1/8W |
| R712 | 1-216-246-00 | METAL CHIP | 100K | 5% | 1/8W |
| R713 | 1-216-270-00 | METAL CHIP | 1M | 5% | 1/8W |

ELECTRICAL PARTS

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|---|---|---|---|---|---|
| R714 | 1-216-230-00 | METAL CHIP | 22K | 5% | 1/8W |
| R715 | 1-216-278-00 | METAL CHIP | 2.2M | 5% | 1/8W |
| R716 | 1-216-180-00 | METAL CHIP | 180 | 5% | 1/8W |
| R801 | 1-247-855-00 | CARBON | 10K | 5% | 1/6W |
| R802 | 1-247-855-00 | CARBON | 10K | 5% | 1/6W |
| R804 | 1-247-879-00 | CARBON | 100K | 5% | 1/6W |
| R805 | 1-247-855-00 | CARBON | 10K | 5% | 1/6W |
| R806 | 1-247-879-00 | CARBON | 100K | 5% | 1/6W |
| R807 | 1-247-855-00 | CARBON | 10K | 5% | 1/6W |
| R808 | 1-247-857-00 | CARBON | 12K | 5% | 1/6W |
| R809 | 1-247-873-00 | CARBON | 56K | 5% | 1/6W |
| R810 | 1-247-875-00 | CARBON | 68K | 5% | 1/6W |
| R811 | 1-247-847-00 | CARBON | 4.7K | 5% | 1/6W |
| R812 | 1-247-853-00 | CARBON | 8.2K | 5% | 1/6W |
| R813 | 1-247-783-00 | CARBON | 10 | 5% | 1/6W |
| R814 | 1-247-813-00 | CARBON | 180 | 5% | 1/6W |
| R815 | 1-247-813-00 | CARBON | 180 | 5% | 1/6W |
| R816 | 1-247-813-00 | CARBON | 180 | 5% | 1/6W |
| R817 | 1-247-813-00 | CARBON | 180 | 5% | 1/6W |
| R818 | 1-247-813-00 | CARBON | 180 | 5% | 1/6W |
| R819 | 1-247-831-00 | CARBON | 1K | 5% | 1/6W |
| RV101 | 1-226-710-00 | RES, ADJ, SOLID 10K | | | |
| RV102 | 1-230-035-00 | RES, ADJ, CARBON 10K | | | |
| RV201 | 1-226-710-00 | RES, ADJ, SOLID 10K | | | |
| RV202 | 1-230-035-00 | RES, ADJ, CARBON 10K | | | |
| RV301 | 1-230-275-11 | RES, VAR, CARBON 50K/50K | | | |
| RV302 | 1-228-545-00 | RES, VAR, SLIDE 50K/50K | | | |
| RV601 | 1-230-351-11 | RES, ADJ, METAL GLAZE 50K | | | |
| RV602 | 1-228-607-00 | RES, VAR, CARBON 20K | | | |
| RV603 | 1-230-351-11 | RES, ADJ, METAL GLAZE 50K | | | |
| S301 | 1-554-029-00 | SWITCH, SLIDE (REC/PB SELECT) | | | |
| S302 | 1-554-222-00 | SWITCH, SLIDE (MIC ATT) | | | |
| S601 | 1-554-142-00 | SWITCH, SLIDE (SPEED TUNE) | | | |
| S801 | 1-554-746-11 | SWITCH, SLIDE (PEAK/BATT SELECT) | | | |
| S802 | 1-552-642-00 | SWITCH (DOLBY NR) | | | |
| S803 | 1-552-642-00 | SWITCH (TAPE SELECT) | | | |
| S901 | 1-553-226-00 | SWITCH, LEAF (POWER) | | | |
| S902 | 1-552-181-00 | SWITCH, LEAF (FWD MUTE) | | | |
| S903 | 1-553-198-00 | SWITCH, LEAF (REC MUTE) | | | |
| T301 | 1-433-244-00 | TRANSFORMER, BIAS OSCILLATOR | | | |
| X701 | 1-527-957-00 | OSCILLATOR, CRYSTAL | | | |

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